

KHASI PHONETIC READER

K. S. NAGARAJA



CENTRAL INSTITUTE OF INDIAN LANGUAGES

KHASI PHONETIC READER

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PREFACE

About six per cent of the population of India is tribal. There have been three views about how best they can be drawn into the main stream of our national life. One obvious way is not to draw them at all and leave them alone and preserve their culture and traditions intact as museum pieces. The other extreme view has been to sort of drown them in the mainstream and completely assimilate them. The third view is to see that the best in their traditions and cultures that is consistent with modern life is preserved and they are integrated so that they maintain their individuality and at the same time participate in and benefit by the modern developments.

It is also the considered view of all the people that matter that these tribals should be integrated with the regional population amidst whom they live. This can be done only when they are approached through their own mother tongues. It is also obvious that it is impracticable to use their mother tongues throughout their education. Their mother tongues are to be used so that they can effectively be integrated into the regional population. This does not mean that they should forsake their mother tongues, but only means that they should gain native-like fluency in their respective regional languages as early as possible. It is for this purpose that their languages have to be scientifically studied and grammatical sketches and vocabularies have to be prepared. The scripts of the regional languages have to be adopted for writing their languages. Primers and textbooks have to be prepared.

To do all this the expertise of the linguists of the country should be placed at the disposal of persons interested in the education of tribals. Administrators who come in frequent contact with the tribals have to learn to speak fluently the tribal language in question. Learning a language implies an acquisition of a good pronunciation. Firstly, the learner must acquire the capacity to recognise readily without any error the

various speech sounds occurring in the language he is learning. Secondly, he must acquire the capacity to produce them with the help of his own vocal organs. Thirdly, he must acquire the capacity to produce the individual speech sounds he has learnt in sequences. In addition to these three skills, which may be sufficient to gain a reasonable pronunciation, the learner, depending on his needs, has to get a mastery over the orthography of the language he is learning. This involves developing automatic associations between written forms and speech sounds.

The Phonetic Readers in this series have been designed with the above points in view. They are mainly intended to meet the needs of administrators who have to learn the language in question.

Each Reader consists of a brief exposition about the organs of speech and their functions. It also introduces some technical terms. Then each speech sound is described in detail giving the movements of the vocal organs. Each description is rounded off by the technical term for that sound. A brief phonetic statement which meaningfully groups the sounds described in the preceding sections is also appended. A statement about the correspondences between the phonemes of the language and the letters used to write them comes at the end. In this section suggestions for improvements in the existing orthography are made. In the case of languages which have not yet been written, suggestions for adopting the script of the regional language are made.

It may be too much to claim that these Readers are perfect. There are lacunae still to be filled up. The most conspicuous of these is the lack of information on intonation.

Though it is true that certain features of pronunciation can only be learnt with the aid of a teacher, the utility of such Readers cannot be underestimated. It is hoped that these Readers will be useful to even persons other than those for whom they are intended.

E. Annamalai

FOREWORD

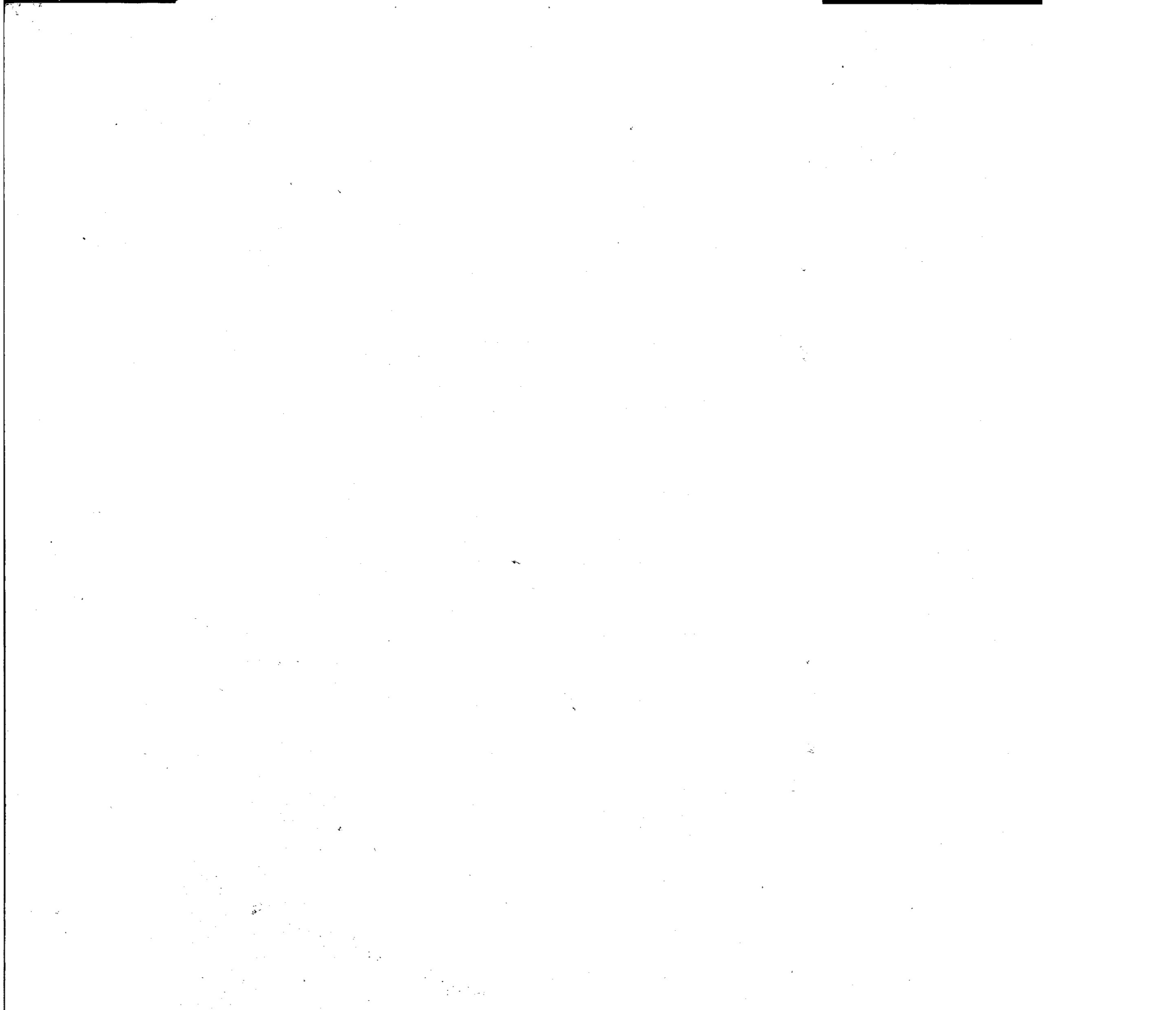
The Central Institute of Indian Languages was set up on the 17th July 1969 with a view to assisting and coordinating the development of Indian languages. The Institute is charged with the responsibility of serving as a nucleus to bring together all the research and literary out-put from the various linguistic streams to a common head and narrowing the gap between basic research and development research in the fields of languages and linguistics in India.

The Institute and its seven regional centres are thus engaged in research and teaching which lead to the publication of a wide-ranging variety of materials. Preparation of materials designed for teaching/learning at different levels and suited to specific needs is one of the major areas of interest of the Institute. Basic research relating to the acquisition of language and study of language in its manifold psycho-social relations constitute another broad range of its interest. The publications will include materials produced by the members of the staff of the Central Institute of Indian Languages and its Regional Language Centres and associated scholars from universities and institutions, both Indian and foreign.

The Institute prepares the Phonetic Readers in Indian Languages, particularly for the development of tribal and other minor languages, with an aim to form the basis for grammatical description, to provide material for teaching pronunciation of these languages and to give a base for the development of script.

The present "Khasi Phonetic Reader" by Dr. K.S. Nagaraja will reflect all these interests. It is hoped that this book will be useful to both scholars who are interested in phonetic studies and practical learners of languages who wish to make a beginning in their study of the language concerned.

A. K. SRIVASTAVA
Director



ACKNOWLEDGEMENT

The data for the present Reader was extracted from my thesis for which the data was collected during my field trips to Meghalaya in 1973 and 74. I am thankful to the Deccan College Post-Graduate Research Institute, Poona, for providing funds and facilities in carrying out the field work and in further study.

My hearty thanks are due to my Khasi friends who provided me the necessary data on which this Reader is based. Among them these persons stand out—Shri Domnic Jala, Shri Lionel Lingdoh (my prime informants), Shri Tibor Singh Raji and Shri. Bhungstor Roy. I am grateful for these persons' full cooperation and help.

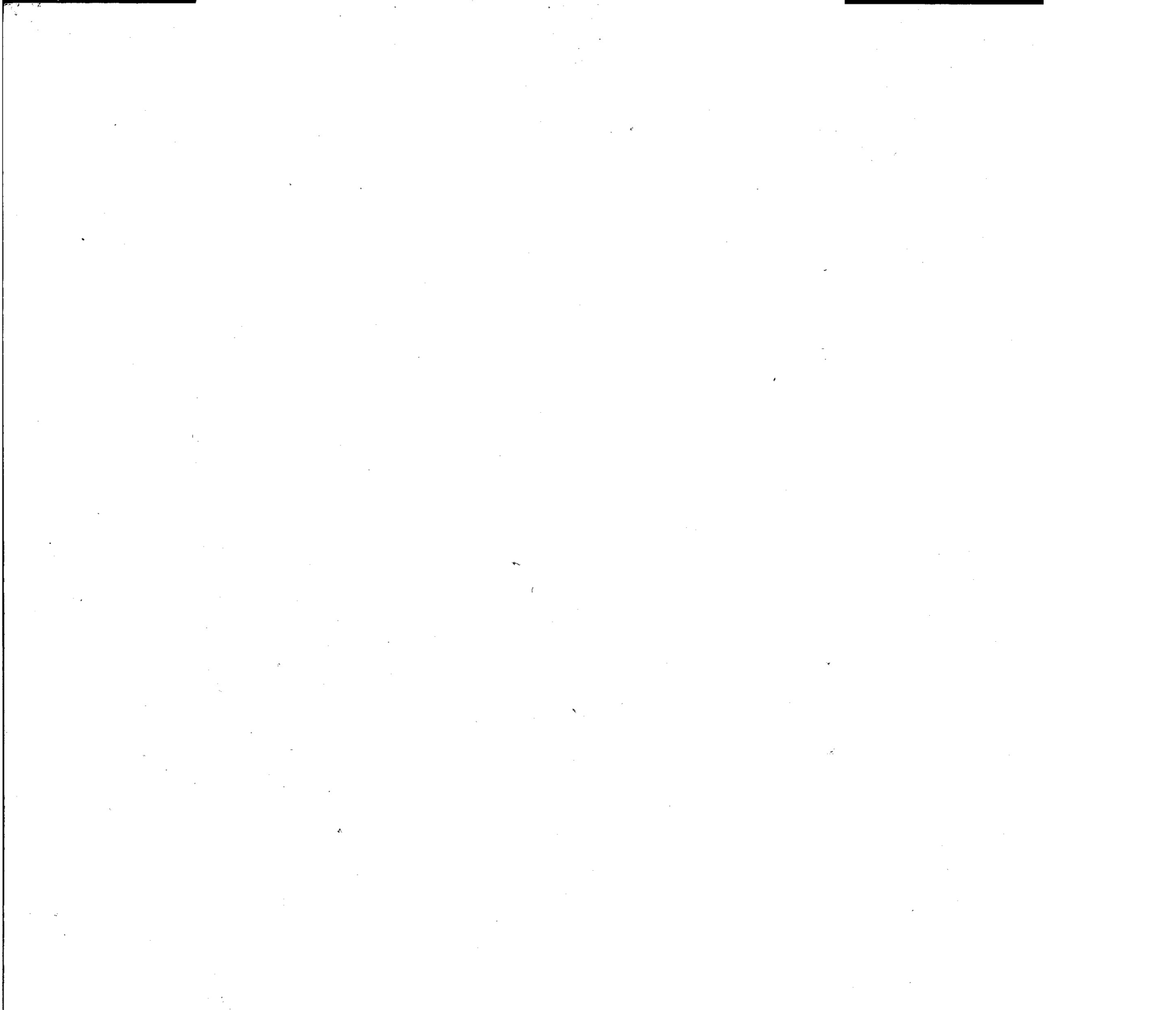
I am thankful to Dr. D. P. Pattanayak, former Director, Central Institute of Indian Languages for providing me this opportunity to write this Reader.

I am very grateful to Dr. E. Annamalai, Deputy Director, Central Institute of Indian Languages, who supervised this work and also gave constant guidance and encouragement throughout.

Dr. M. R. Ranganatha, Research Officer, Central Institute of Indian Languages went through the first draft of the manuscript thoroughly and gave valuable suggestions. I am grateful to him.

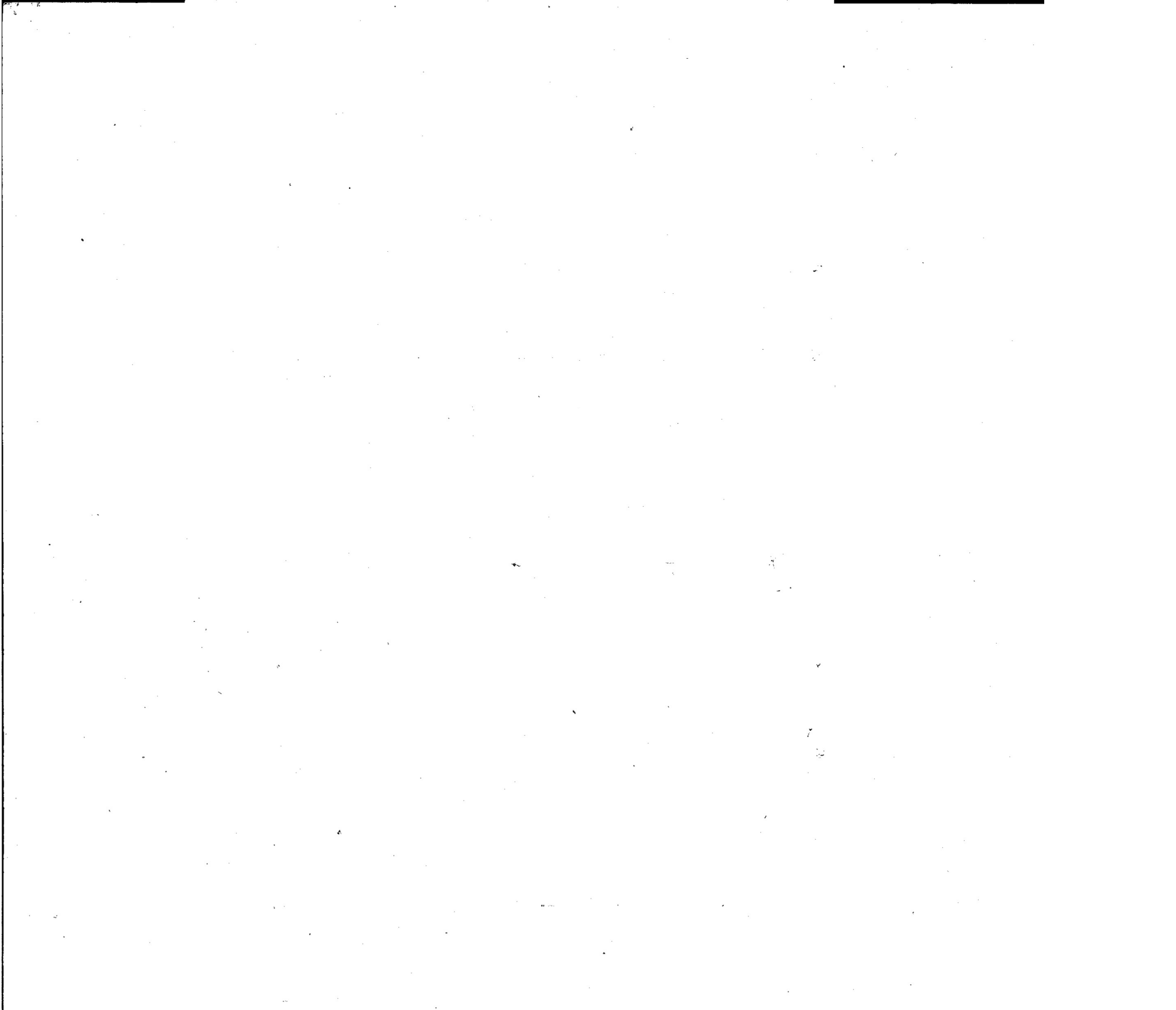
My thanks are due to Shri H.L.N. Bharati for seeing the book through the Press.

K. S. Nagaraja



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INTRODUCTION

Family of Languages

Among the four major language families which are spoken in India, the Austroasiatic language family takes the third position from the point of view of the number of speakers.

1. Austroasiatic language family

The languages of Austroasiatic family are spoken in India and in South Asian Countries. Austroasiatic language family consists of four main branches¹ — 1. Munda, 2. Mon-Khmer, 3. Malacca and 4. Nicobarese. Among these four branches languages of first and the fourth branches are spoken in India. Also, Khasi, which is a member of Mon-Khmer branch, is spoken in India. It is worth noting that all the languages belonging to the Austroasiatic family which are spoken in India, are spoken by the people who live in the hilly tracks and mountainous regions.

Khasi is spoken in the State of Meghalaya (along with Garo, a Tibeto-Burman Language); Munda languages are spoken in the hilly regions of Central and North India; and Nicobarese is spoken in the Nicobarese Islands of India.

The term 'Khasi' stands for both the tribe and the language.

1. Thomas David and Headley Robert, Jr., 1970.

2. Geographical distribution

Khasis inhabit in the United Khasi and Jaintia Hills district of Meghalaya. Geographically it is an island of Austric language amidst of the languages of other families. It is surrounded in the north and south by Assamese, and Bengali. It is surrounded by Tibeto-Burman languages such as Garo, Bodo, Kachari, Mikir etc. in the West, North and East.

The area covers about 6157 Sq. miles with a population of 3,84,606 speakers (including various Khasi dialects - 1971 - provisional figures).

3. Dialects

Khasi has four dialects¹ — 1. Khasi proper, which is considered as the standard, and used for all literary purposes. is spoken around Cherrapunji by 2,89,650 speakers; 2. Synteng (or Pnar or Jaintia) spoken in the Central Plateau of the Jaintia Hills (i.e. Jowai subdivision) by 55,113 speakers; 3. Lyncams, spoken in the south-west by about 14,673 speakers, and 4. War, spoken in the low southern valleys bordering on the Sylhet plains by 3,854 speakers. There is one more (minor) dialect called Bhoi-Khasi² spoken in the northern lowlands of the district

4. Special features of Austroasiatic family

1. The languages of this family differ from other families like Indo-Aryan, Dravidian and Tibeto-Burman in having the word order SVO. 2. Their morphology is predominantly agglutinative, though elements of inflection can be found. 3. These languages are rich in initial consonant clusters. 4. They, particularly Khasi, have a process known as contraction (i.e. simplification of initial consonant clusters of initial syllables).

5. Ethnologically Khasis are different from other hill tribes of eastern India. The Khasis are believed to have come from

1. Grierson, Sir George.

2. S. K. Acharya.

south-east Asia. Anthropologically, Khasis belong to a modified dolicho-cephalic palace Mongoloid racial stock³. The term 'Khasi'⁴ has a particular significance. *Kha* means 'born of' and *si* refers to an ancient mother – i.e. *Khasi* means 'born of the mother'. Descent is claimed from a common ancestress and it goes down through the females. It is the husband who, after marriage, has to go and live in his wife's house and not vice versa. Property is inherited by the youngest daughter.

6. Till the latter part of the 18th century, Khasis had their own religion. Since the latter part of 18th century, when the missionaries entered this region, there has been a large scale conversion. Through the efforts of the Welsh methodist missionaries, backed by the British government, a very large percentage of Khasis have now become christians⁵. Since that time people have progressed a lot. Now there are more schools per capita than in any where in India. The progress can be noticed not only in the sphere of education; but also in the fields of social and political.

7. As Khasi language had no indigenous script (ch. 5), Roman script was adopted during the latter part of 18th century. Bengali was used briefly before that. Since independence the spheres of using Khasi language has extended and widened from mere translation of a few books (religious) to writing books on all subjects and is used for other creative activities. Khasi language is recognised as the medium of instruction in the primary schools. It is also used as a medium of expression in legislative assembly of Meghalaya. According to 1971 census it has a literacy rate of 29.49% as compared to the national average of 29.4%.

Since 1841 Roman script is used for writing Khasi. The first book in Khasi to be printed was in 1842, was *ka kot pule ba*

3. Gaha, B. S.

4. Hamlet Bareh, *ibid.*

5. S. K. Chatterji, 1974.

nyngkong (the First Khasi Reader), at the Calcutta Press, followed by a booklet by Welsh missionary, entitled *Rhoddmon* (My mother's gift), and a booklet on *christian catechism ka kot layphew* and the translation of *st. Mathew*, all the above works by Thomas Jones. All these were written in the Cherrapunjii dialect of Khasi. The complete edition of the Bible came in 1899. Khasi literature in the last century was mostly christian. Later on books on different subjects began to come⁶— e.g. 1. Pryse, W., An Introduction to Khasi Language (1855), 2. Roberts, Hugh Dictionary (Anglo-Khasi) (1878); 3. Roberts, H. A Grammar of Khasi (1891); 4. Roberts, John. Khasi Readers 1 to 4 – last number came in 1895–6. In 1895 U. Jeb Solomon, a Khasi himself, wrote A Guide to write the Khasi language, under 3 sections – grammar, phrases and dictionary (English-Khasi). For details on History of Khasi literature read Hamlet Bareh's Book (1969).

For all the literary and other purposes of writing the dialect spoken around Chirrapunjii, which is considered as the standard, is used.

This Khasi phonetic reader, is based on the phonology of my thesis 'A Descriptive analysis of Khasi', 1978. This phonetic reader is based on the standard dialect of Khasi, spoken around Cherrapunjii.

This phonetic reader consists of five chapters. The first chapter describes the speech organs and their functions; the second chapter gives a brief outline of Khasi phonology; the 3rd chapter describes the speech sounds of Khasi; the 4th chapter gives drills for practice; and the fifth chapter deals with the Orthography of Khasi. It is followed by a selected Bibliography.

6. Here books pertaining to language only are mentioned.

1. Gimson, Sir George.
2. S. K. Acharya.

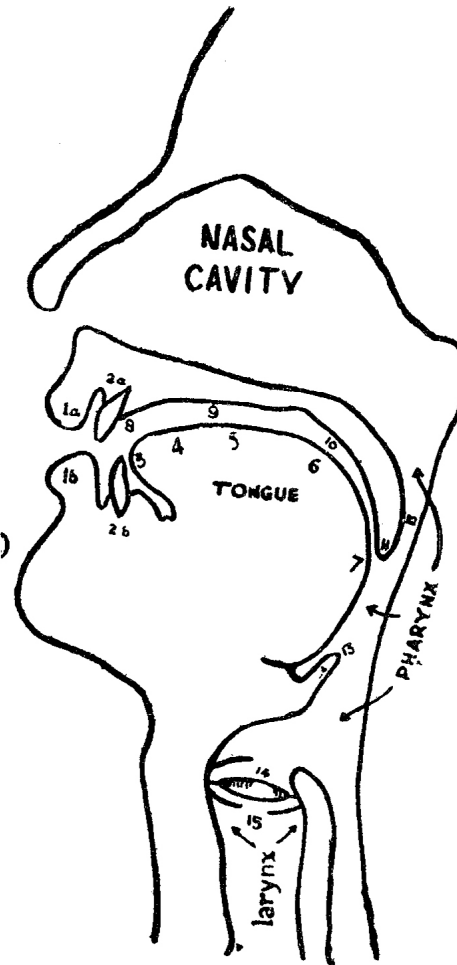
1. ORGANS OF SPEECH

The parts of the human body which are directly involved in the production of speech are usually termed as the organs of speech. The main organs of speech are the month (oral cavity), the nose (nasal cavity), the throat (pharynx) and the lungs. These organs have other primary biological functions like eating, smelling, breathing etc. Speech is only a secondary or an overlaid function. A diagram showing the organs of speech is given below and the following description could be understood better by referring to the organs named in the diagram.

The most important function of the lungs which is relevant to speech production is respiration and it is responsible for the movement of air. Lungs are controlled by a set of muscles which make them expand and contract alternately so that the air from outside is drawn in and pushed out alternately. When the air is pushed out of the lungs it passes through the *windpipe* or *trachea* which has at its top the *larynx*. Larynx is a cartilaginous structure which makes the *glottis*. Glottis is the passage between the two horizontal folds of elastic muscular tissues called the *vocal cords*, which, like a pair of lips, can close or open the glottis (i.e., the passage to the lungs through the windpipe). The main physiological function of the vocal

cords is to close the lungs for its own protection at the time of eating or drinking so that no solid particle of food or liquid enters the lungs through the windpipe. By virtue of their tissue structure,

- 1a Upper lip
- 1b Lower lip
- 2a Upper teeth
- 2b Lower teeth
- 3 Tip of the tongue
- 4 Blade of the tongue
- 5 Front of the tongue
- 6 Back of the tongue
- 7 Root of the tongue
- 8 Alveolar ridge
(also called teeth ridge)
- 9 Hard palate
- 10 Soft palate
(also called velum)
- 11 Uvula
- 12 Velic
- 13 Epiglottis
- 14 Glottis
- 15 Vocal cords



Sagittal Section of Speech Tract

however, the vocal cords are capable of vibrating with different frequencies when the air passes through and this vibration is

called *voice*. After passing through the glottis and reaching the pharynx the outgoing *airstream* can escape either through the *nasal cavity* having its exit at the nostrils or through the *oral cavity* having its exit at the month. When the air escapes through the mouth, the nasal cavity can be closed by bringing the back part of the soft-palate of the *velic* into close contact with the pharyngeal wall. Such a type of closure of the nasal passage is called the *velic closure*. When there is velic closure the air can escape only through the mouth. The nasal cavity can also be kept open when the air passes through the month allowing part of the air to pass through the nose also. The oral passage can be closed at some point so that the outgoing air is temporarily shut up in the *pharyngeal cavity* if the velic is also closed or if the velic is open, the air escapes through the nostrils. Normal breathing occurs with the air generally passing through the nasal cavity. This is a brief account of how some of the organs of speech take part in respiration.

It may now be seen how speech sounds are generally produced, using respiration as the source.

MECHANISM OF SPEECH PRODUCTION

Speech may be said to consist of sounds produced by the movements of the various organs of speech disturbing the current of air moving from and into the lungs. Production of speech sounds, therefore, is based on the airstream and the movement of the speech organs, which is called the *process of articulation*.

The airstream mechanism

The airstream which acts as the source of speech sounds

may be said to be a column of air which has the lungs at one end the lips and the nostrils on the other. This column consists of four cavities, namely, the oral cavity, the nasal cavity, the pharyngeal cavity and the lung cavity with interconnected passages at the back of the mouth, and at the glottis. These cavities are endowed with such muscular devices as would enable them to expand or contract so that the air is drawn into them or pushed out of them. When the air is pushed out of a cavity it is called an egressive airstream and when it is drawn into a cavity it is called an ingressive airstream. The lungs are the major initiators of the airstream. An airstream initiated by the lungs is called the pulmonic airstream. Most of the human speech sounds have the pulmonic egressive airstream as their source.

The Process of Articulation

Articulation is a process resulting in the production of speech sounds. It consists of a series of movements by a set of active organs of speech called the *articulators* moving towards or coming into contact with certain other organs of speech which remain relatively motionless. The organs which remain motionless are called the points of articulation. The type or the nature of movement made by the articulator is called the *manner of articulation*.

Most of the articulators are attached to the movable lower jaw and as such lie on the lower side or the floor of the month. The points of articulation or most of them are attached to the immovable upper jaw and so lie on the roof of the month. Therefore, nearly all the articulatory movements are upward movements. The articulatory description of a speech sound, therefore, has to take into consideration the articulator, the point of articulation and the manner of articulation.

Articulators and points of Articulation

While describing the articulators and the points of articulation it would be convenient to take the points of articulation first. The main points of articulation are the upper lip, the upper teeth, the alveolar ridge, the hard palate and the soft palate which is also called the *velum*. The upper lip and the upper teeth are easily identifiable parts in the mouth. The alveolar ridge is the rugged, uneven and elevated part just behind the upper teeth. The hard palate is the hard bony structure with a membranous covering which immediately follows the alveolar ridge. The hard palate is immediately followed by the soft palate or the *velum*. It is like a soft muscular sheet attached to the hard palate at one end, and ending in a pendulum like soft muscular projection at the other which is called the *Uvula*. Besides the above points of articulation the pharyngeal wall also may be considered as a point of articulation.

The two most important articulators are the *lower lip* and the *tongue*. The tongue owing to its mobility is the most versatile of articulators. As the surface of the tongue is relatively large and the different points of tongue are capable of moving towards different places or points of articulation. It may be conveniently divided into different parts, viz ; the front, the centre, the back and the root of the tongue. When the tongue is at rest behind the lower teeth then the front part of the tongue which lies opposite to the hard palate is called *front* of the tongue. The part which faces the soft palate is called the *back* and the region where the front and the back meet is known as the *centre*. The whole upper surface of the tongue i.e. the part lying below the hard and soft palates is called by some scholars as the *dorsum*. The part of the tongue at the extreme end facing of the tongue can be further divided into three parts as follows : The tapering section of the front facing the teeth ridge is called the *blade*, its extremity is called the tip. The tip and the blade of the tongue are together called, sometimes, the *apex*. The remaining part of the front of the tongue is referred to as front only.

The articulator and the point of articulation together identify the source of the sound as for instance the lower lip as the articulator and the upper teeth as the point of articulation produce a sound which can be identified as a labio-dental. Similarly sounds can be identified as bilabial when the lower lip as the articulator comes to contact with the upper lip as the point of articulation.

Manner of articulation

During the process of articulation an articulator moves towards or comes into contact with a point of articulation in such a way that the passing air-stream is obstructed or modified so as to produce some type of audible noise. The type of obstruction or modification of the air-stream is usually called the manner of articulation. Different manners of articulation produce different types of sounds.

The first distinction of speech sounds that can be made on the basis of the manner of articulation is the distinction between the vowels and consonants. In the production of vowels the out-going air-stream passes freely through the oral cavity which acts only as a resonator while in the production of consonants the air-stream meets with some types of obstruction before it finally passes out of the vocal tract. While describing the articulation of speech sounds some scholars prefer to use the term *vocoid* for a vowel and *contoid* for a consonant. The terms vowels and consonants are restricted for use in describing their function with in a language.

The state of the glottis

Besides the articulator and the point of articulation which together take part in the production of speech sounds another important factor which determines the audible nature of the sounds produced is the *state of the glottis*.

The state of glottis is usually described in terms of the vocal cords. If the glottis is completely closed by bringing the vocal cords firmly into contact with each other so that no air passes through them, then, the glottal stop (sometimes called the 'glottal catch') is produced. If the vocal cords are brought close to each other so that they almost touch each other but still have some space for the air stream to pass through, they vibrate producing *voice*. If the vocal cords are kept apart then the air passes through the glottis without any obstruction producing *voicelessness*. Slight increase or decrease in the width of the passage and the tension of the vocal cords may produce different varieties of sounds like whisper, creaky voice or breathing voice and so on.

This gives us a brief sketch of the mechanism of speech production. We may now consider the types of consonant and vowel sounds generally found in language.

Articulation of consonants—Manners of articulation

Consonants can be classified on the basis of the manner of articulation as stops, nasals, fricatives, trills, flaps, laterals, affricates, continuants, etc., and each class may be described as follows.

Stops: Stops are produced by complete closure of stoppage of the air stream at some point above the glottis accompanied simultaneously by a velic closure. Because of these two closures the air stream, if egressive, is temporarily obstructed and the air is compressed behind the point of articulation where it is obstructed. When the closure is released by removing the articulator from its contact the compressed air escapes out with a small explosion or popping noise. Such sounds are called stops or plosives. When the contact is not released suddenly then there will not be any popping noises heard and the stops thus produced are called unreleased stops.

If the air stream is ingressive then the air behind the point of articulation is rarefied creating a low pressure area. When the contact between the articulation and the point of articulation is removed there will be a sudden rush of air inwards instead of outwards producing a similar popping noise. Such sounds are called implosives, or injective stops or suction stops.

Aspiration of stops : Aspiration as a feature of the stops is observed in many languages. Aspiration in the case of stops refers to the type of release of the stopped of air in the region above the glottis. When the release is accompanied by an 'extra puff of air' then the stop is said to be aspirated. The difference in the articulations of aspirated and unaspirated stops is explained as follows. While producing a stop if the pressure of the air behind the stoppage is not so high and the release is immediately followed by another closure elsewhere then the resultant sound is an unaspirated stop. If on the other hand the pressure of air behind the closure is high and the next closure is delayed then the release results in a clearly audible popping noise, simultaneously accompanied by a hissing noise which is called *aspiration*. It may be pointed out, however, that descriptions of aspiration given by different scholars appear to be different probably because different languages are found to have different degrees of aspiration. To have a clear understanding of this we may have to know the different articulatory stages involved in the production of a stop. The production of a stop may be said to have three stages, viz.,

1. Commencement of the closure
2. the period of closure and
3. the release.

Besides the stoppage and release of the air column the state of the glottis also is significant for the nature of the stop produced. During the period of closure if the vocal cords vibrate then the stop produced is called a *voiced stop*. If they do not vibrate then the stop is called *voiceless*. A voiceless

stop for which the vocal cords do not vibrate during the period of closure will have an *unaspirated release* if simultaneously vibrating. If on the other hand the vocal cords do not start vibrating but continue to be in the state of voicelessness during the release and a little while even afterwards then the brief period of voicelessness following the release is called aspiration and the stop so produced is called an aspirated stop. Such stops are, however, mildly aspirated stops as in the case of English stop sounds. It is also possible to produce highly aspirated stops which are usually described as being released with an extra puff of air. In the same manner as it is in the case of mildly aspirated stops the glottis remains open during the period of closure and release so that between the release and next closure a brief period of voicelessness follows. Besides simultaneously with the release of the blocked air in the region above the glottis an additional quantity of air is pushed out of the lungs by the action of the respiratory muscles. This produces the extra puff of air that immediately follows the release. The quantity of air thus pushed out will be more than the quantity of air that normally goes out during the state of voicelessness. The resultant stops are highly aspirated stops as they are in the case of many Indian languages. It may be worth noting in this connection that the mildly aspirated English stops are perceived as unaspirated stops by the speaker of Indian languages where the stops are highly aspirated. Similarly voiced stops may also have an aspirated release. In the production of a voiced stop the vocal cords are vibrating during the period of closure. If the vocal cords continue to vibrate even at the time of release of the stop and the next articulation follows then the resultant stop is called an *unaspirated voiced stop*. If on the other hand the vocal cords which were vibrating during the period of closure suddenly stop vibrating at the time of release and allow an extra puff of air to be pushed out of the lungs by the action of the respiratory muscles then the stop will have an aspirated release. The vocal cords may immediately resume the state of vibration to produce either a breathy or murmured type of voice. Such stops are called as *aspirated voiced stops*.

Affricates: Affricates are produced when the air stream is completely stopped by an articulator as for a stop but at the time of release the articulator leaves the contact with the point of articulation slowly, momentarily creating a narrow passage so that the air passes through with friction. The resultant sound is heard like a stop followed by its homorganic fricative.

Nasals: Nasals are produced by a complete closure of oral passage and allowing the air to pass through the nostrils. This is done by stopping the airstream at some point in the mouth, but without the velic closure. The air stream which is prevented from passing through the mouth, therefore, escapes through the nose.

Fricatives: Fricatives are produced when an articulator comes into near close contact with a point of articulation so that a narrow passage is available for the air stream to pass through. The air escapes with an audible friction.

Trill: Trills are produced when the contact between the articulator and the point of articulation is of intermittent closure, i.e., the contact and release occurs several times in quick succession. These sounds are also called by some scholars as 'rolled sounds'. When there is a single momentary contact consisting of a simple tap by the articulator on the point of articulation then the sound produced is called a 'tap'.

Flap: Flaps are produced when an articulator in a ballistic or sweeping moment makes a passing contact once with a point of articulation. For example, if the tip of the tongue is curled upwards and then falls forwards on to the floor of the mouth making a passing contact with the teeth ridge on its way then a flap is produced. The sound represented by 'd' in the words 'radio' as it is pronounced by some of the Hindi speakers may be cited as an example for this type of flap.

Lateral: A lateral is produced when the air stream is stopped at some point along the centre of the vocal tract by the front of the tongue in such a way as to allow a passage on one or both sides of the tongue for the airstream to pass through.

Semi Vowels: Semi vowels are produced when an articulator comes towards a point of articulation in the same way as for a fricative but the passage left for the air is so wide as to allow the air to pass through without any friction. They are also called frictionless continuants or approximants.

Points of articulations of consonants

On the basis of the points of articulation consonants can be classified as labials, dentals, alveolars, palatals and velars.

Labials: Labials are produced when an articulator comes into contact with the upper lip as the point of articulation. Usually the lower lip acts the articulator and the resultant sound is called a *bilabial sound*.

Dentals: Dentals are produced when an articulator comes into contact with the upper teeth as the point of articulation. The tongue acts as the articulator coming into contact with the upper teeth. The resultant sounds is called a *dental sound*. Instead of touching the upper teeth alone the tongue may come between the upper and lower teeth. Then the sound produced is called an *interdental sound*. Sometimes the lower lip may act as the articulator coming into contact with the upper teeth then the sound produced is called a *labio-dental sound*.

Alveolars: An alveolar sound is produced when an articulator, either tip or the blade of the tongue, comes into contact with the alveolar ridge. The sound thus produced is called an *alveolar sound*.

Palatals: A palatal sound is produced when an articulator, usually the front of the tongue, comes into contact with the *hard palate* as the point of articulation.

Velars: A velar sound is produced when an articulator, usually the back of the tongue, comes into contact with the soft palate or velum as the point of articulation.

Regarding the alveolar, palatal and velar sounds, it may be noted that these three regions cover the entire area of the roof of the mouth between the upper teeth and the uvula. As each of the regions is sufficiently wide to allow an articulator to touch different points within the region the alveolar, the palatal, and the velar sounds can be further distinguished as follows :

1. Alveolars may be distinguished as *alveolar* and *post alveolar*,
2. Palatals may be distinguished as *prepalatal*, *palatal* and *post-palatal*;
3. Velars may be distinguished as *pre-velar*, *velar* and *post-velar* sounds. Besides the above the uvula, the pharynx and the glottis may also be considered as the points of articulation. The *uvula* has no power of independent muscular movement but can be lowered into a groove formed by the back of the tongue and be made to vibrate in a passing air-stream. A sound thus produced is called *uvular* trill.

In the *pharynx* with the pharyngeal wall as the point of articulation and the root of the tongue as the articulator *pharyngeal* sounds can be produced. With the glottis as the point of articulation and the vocal cords as the articulators glottal sounds such as the glottal stop (glottal catch) or glottal fricatives can be produced.

Aspiration of other Consonants

Aspiration of consonants such as fricatives, nasals, affricates, laterals are also observed in some of the Indian languages particularly those belonging to Tibeto-Chinese family of languages. Aspiration in these cases refers to a brief period of voice-

lessness immediately following the articulation of the consonant. In the case of most of the Indian languages voicelessness is accompanied by an extra puff of air pushed out of the lungs by the action of the respiratory muscles. In some cases, instead of following, aspiration may precede the articulation of some consonants such as nasals and laterals. Such consonants are called pre-aspirated consonants.

This gives us a general idea about the points of articulation of speech sounds.

It may be noted that the manners of articulation and points of articulation mentioned indicate the general types of articulation of consonants. Actual sounds found in any particular language will have to be described specifically with reference to the manners and points of articulation actually involved in their production. It may also be noted that in describing and classifying consonant sounds mainly the manners of articulation and the points of articulation are considered. The articulators are not necessarily mentioned.

Articulation of Vowels

It has been stated earlier that while producing a vowel the out-going air-stream passes through the oral cavity without any obstruction. The mouth and the throat together form a tube-shaped air cavity which starts at the larynx and ends at the lips. This tube as a whole is generally called the oral tract. A vowel sound is essentially a sound produced by resonance of the air-column in the oral tract which vibrates in consonance with the vocal cords. Vowels are, therefore, usually voiced sounds. The actual shape of the oral tract and thus the shape of the air column in it, may be moulded to assume different forms by the actions of the articulators which are mainly the tongue and the lips. The difference in the shape of the vibrating air column in the oral tract is responsible for the different vowel sounds that can be produced in the vocal tract.

A description of the vowel sounds must, therefore take into consideration all the factors that are involved in the formation of the resonating column of air within the oral tract, viz., the tongue and the lips. The tongue, we know, can make a variety of movement and by taking different positions in the mouth can alter the shape of the air column, thus changing the nature of the sound produced. The position or the posture of the lips also is capable of altering the shape of the air column independent of the tongue position. Therefore, vowel sounds must be described with reference to the posture of the lips and the position of the tongue in the mouth.

The position of the tongue in the mouth has mainly two characteristic positions that can easily be observed. By observation we know that while making a sound like 'aaa.....' we can keep the mouth wide open with the upper and lower jaws kept quite apart. But while making a sound like 'iii.....' the mouth is almost closed with the upper and lower jaws being brought very close to each other. The position of the tongue in both the cases can be described in terms of the distance between the roof of the mouth in the upper jaw which is relatively immovable and the upper surface of the tongue attached to the lower jaw which is movable. In case of 'iii.....' the position is '*high*' as the surface of the tongue is very near the roof while in case of 'aaa.....' it is low as it is down below, far away from the roof. Regarding the position of the tongue in the month it can also be observed further by looking into a mirror or by putting one's own finger into the mouth that while producing a vowel sound the tongue does not lie flat with its upper surface having a horizontal level but it assumes a characteristically 'convex' shape with some part of the tongue being raised or making a 'hump'. Usually it is the highest point on this 'hump' or raised part of the tongue that is considered for the 'height' of the tongue. This is one dimension which is on the vertical level. There is another dimension on the horizontal level. The tongue, owing to its flexibility can have any of its parts raised up so as to make the hump, either

at the *front*, at the *centre* or at the *back* of the tongue. Thus a vowel sound can be described with reference to two dimensions based on the position of the tongue in the mouth as follows :

1. the height of the tongue with reference to the roof of the mouth and the highest point on the hump on the vertical level. This is usually referred to as 'tongue height' and

2. the position of the tongue with reference to the position of the 'hump' on the surface of the tongue as to whether it is in the front, the centre, or the back of the tongue. This is referred to usually as 'tongue position'.

With reference to tongue height though it is possible to differentiate many levels, generally four vertical levels are recognised as reference points. They are 'high' and 'low' forming the two extremes as the highest and the lowest possible levels and intervening middle level being distinguished as 'higher mid' and 'lower mid'. Alternative terms used for these are (1) close (2) half-close (3) half-open and (4) open. The vowels thus produced are being called (1) high or close vowels (2) higher-mid or half-close vowels (3) lower-mid or half open vowels and (4) low or open vowels.

With reference to tongue position the distinction made is of (1) front (2) central and (3) back. The vowels thus produced are being called front, central or back vowels.

Lip posture: The third dimension with reference to which vowels are described is the posture of the lips. Usually two clearly visible lip postures are recognised, viz., *rounded* when the corners are brought forward and both the lips together make a circular shape and *unrounded* or *spread* when the corners are pulled back. In general it is observed that when front vowels are produced the lips are rounded. In the case of central vowels the lips usually assume a posture which can neither be stated rounded or unrounded. Such a posture is called the neutral posture. But there are languages in which

the front vowels have rounded lip postures and back vowels have unrounded postures. The central vowels also may have either rounded or unrounded lip postures.

It may be pointed out, however, that the distinctions made above regarding the height and positions of the tongue as well as the postures of the lips provide only some convenient points of reference. But in actual languages the positions and postures vary and they have to be described accordingly. It may be useful, at this stage to refer to the *cardinal vowels*, usually referred to by linguists.

Cardinal vowels: The Cardinal vowel system is a system of vowels proposed by Daniel Jones as convenient reference points for the description of vowels. The cardinal vowels represent a set of eight vowels symbolised as

[i], [e], [ε], [a], [ʌ], [ɔ], [o], [u]

These vowels are distinguished on the basis of tongue position and tongue height. The cardinal vowel [i] represents the front of the tongue raised as close as possible to the palate without friction being produced when the air passes through. The vowel [a] represents the front of the tongue being in its lowest possible level in the mouth with the lips remaining spread of neutrally open and the soft palate is raised [e] and [ε] represent the front of the tongue at equidistant points from [i] and [a] so that the distance between [i] and [e] is equal to the distance between [e] and [ε] as well as between [ε] and [a]. To the ear also the qualities of the vowels [i], [e], [ε] and [a] are heard as equidistant. Similarly the vowels [ʌ], [o] and [u] represent the back of the tongue as four different points from each other [ʌ] representing the lowest point while [u] represents the highest point. [ɔ] and [o] represent two points between [a] and [u] so that the distances between [a] and [ɔ], [ɔ] and [o] and [u] are equal. The lips indicate a progressive change from a wide open shape for [a] to a closely rounded shape for [u] and the soft palate

remains raised. These cardinal vowels are usually called as primary vowels and are represented in a scale denoted by the following numbers and symbols

1. [i]; 2. [e]; 3. [ε]; 4. [a]
 5. [a]; 6. [ɔ]; 7. [o]; 8. [u]

The Cardinal vowels can be arranged in a chart as follows :

Tongue height	Tongue position	
	Front	Back
High (or close)	[i] (1)	[u] (8)
Higher-Mid (or half-close)	[e] (2)	[o] (7)
Lower-Mid (or half-open)	[ε] (3)	[ɔ] (6)
Low (open)	[a] (4)	[a] (5)

It may be seen from the chart that the cardinal vowels represent only the front and back vowels i.e., vowels articulated by the front and the back of the tongue. The central vowels i.e., the vowels that are articulated by the centre of the tongue are not brought out in the above system. Many Indian languages have central vowels which may be distinguished in the same way as the front and back vowels on the basis of the height of the tongue.

Voiceless Vowels

It has been stated earlier that vowels are generally voiced. It is because the vowel sounds are produced with the vocal cords vibrating. However, it is also possible to produce *voiceless vowels*. Voiceless vowels are produced when the air from the lungs is allowed to pass through the glottis with the vocal cords kept apart. The vocal cords do not vibrate and the air passing through the glottis enters the oral cavity where the position of the tongue and the posture of the lips are so formed as to produce a particular vowel sound. The air passing through the oral cavity escapes out between the lips. The noise of turbulence of the escaping air is called a *voiceless vowel*.

Stress: The intensity or loudness with which a speech sound is produced is usually called stress. Stress depends upon the intensity or degree of muscular effort exerted in the production of a sound. The effort determines the amplitude of vibration of the vocal cords. That is, the amount of the puff of air which passes through at each opening of the vocal cords determines the stress. The larger the puff of air the greater the stress. Languages using stress in their phonemic system are said to have a *stress-accent system*.

Pitch: We have already noted that the vocal cords are endowed with the capacity to vibrate at different frequencies when air passes through them. This frequency of vibration of the vocal cords is called pitch. When the frequency is high the vocal cords are said to be vibrating in a high pitch and when the frequency is low they are said to be vibrating in a low pitch. Though the vocal cords are capable of vibrating in different pitches not more than four or five relatively distinct pitch levels can be found in any language. When the vocal cords vibrate it is not necessary that they vibrate at the same frequency all through in a single stretch. Instead a sound may start at a high frequency, i.e., high pitch and at a low frequency

i.e., low pitch. As a result the vowel sound produced will have a pitch which falls from a high to low level. Similarly it is possible to raise the pitch from a low to high level.

If pitch is significant in a language so that difference in pitch also makes a difference in the meanings of words then the pitch is called *tone*. If the system of tone in a language is based on the levels of tones then it is called a *register system*. If it is based on changing levels then it is called a *contour system*. A language may have either a register system, or a contour system or a combination of both.

Secondary Articulations

In the preceding paragraphs, we have discussed the articulation of consonants and vowels mainly with reference to one major process of articulation where only one single articulator, a point of articulation and the movement made by the articulator are involved. Such articulations are called primary articulations. It is also possible to modify a speech sound by a secondary articulation. Secondary articulations are articulations made at the same time as the primary articulations by articulators which are left free by the primary articulation. Some scholars make a further distinction in Secondary articulations as co-articulation (or double articulation) and secondary articulation the difference between the two being that in co-articulation the obstruction to the air-stream or the modification of the air cavity is as intense as it is in primary articulation. While in the case of secondary articulation it is of lesser intensity. However both are considered as secondary articulations here. For instance while producing a lateral sound by stopping the air-stream in the centre of the vocal tract and leaving the air-stream to pass through one or both sides of the tongue. The front of the tongue may be raised towards the hard palate with *the tip turned towards*. Then the air passes not only through the sides but also partly above the tongue. The sound thus

produced would be heard as a combination of lateral and palatal articulations. Such a process of articulation is called *palatisation*. Similarly secondary articulation like *labialisation* where the addition of lip-protrusion and rounding to the articulation of a sound or *velarisation* in which the back of the tongue is elevated towards the soft palate, or *pharyngealisation* in which the back of the tongue is moved towards the pharyngeal walls are observed in many languages.

Nasalisation : Nasalisation as an additional feature of articulation of mainly vowels is done by allowing the outgoing air-stream to pass through the nasal cavity also by keeping the velic open.

2. PHONEMIC INVENTORY

2.0 Distribution :

The phonemes in Khasi are the following :-

A.	Vowels	Front	Central	Back
	High	i i:	ɨ	u u:
	mid	e e:		o o:
	low		a a:	

B. Consonants :

		Bilabial	Alveolar	Palatal	Velar	Glottal
Stops-Vl.unasp.		p	t		k	ʔ
	Vl.asp.	ph	th		kh	
	Vd.unasp.	b	d	j		
	Vd.asp.	bh	dh	jh		
Nasals	:	m	n	ɲ	ŋ	
Fricatives	:		s	ʃ		h
Trill	:		r			
Laterals	:		l			
Frictionless						
Continuant	:	w		y		

2.1 There are eleven vowels and twentyfour consonants altogether thirtyfive phonemes. These sounds are distinctive and are required for unambiguous representation of Khasi sounds.

Duration is phonemic for vowels. Also stress and pitch are distinctive contextually—stress is for emphasis and pitch for intonation.

Here contrastive pairs are given to illustrate the phonemes listed above :

2.2.1 Vowels—2.2.1.1. Contrast of Length : The vowels of Khasi except /ɨ/ show a contrast between short and long varieties. Some pairs of words are given below to *illustrate this* :

- | | |
|------------|--------------------------------|
| /i/ — /i:/ | sim 'bird' |
| | si:ma:d 'bed bug' |
| /e/ — /e:/ | i. em 'well-to-do' |
| | e:m 'no' |
| | ii. ber 'like-flash' |
| | be:r 'sprinkle' |
| /a/ — /a:/ | i. bray 'asunder' |
| | bra:y 'like' |
| | ii. tam 'exceed' |
| | ta:m 'pickup; father' |
| /o/ — /o:/ | kop 'ear of corn' |
| | ko:p 'deserve' |
| /u/ — /u:/ | i. lun 'tadpole' |
| | lu:n 'throw' |
| | ii. khlur 'come off' (as hair) |
| | khlu:r 'a star' |

2.2.1.2. The vowels show a three way contrast regarding the part of the tongue that is used as an articulator : Front, Central and Back. The front and back vowels (both short & long) show a two-way contrast in height between high and low. The short

central vowels also show a similar two way contrast; whereas the long central vowels do not show such a contrast. The back vowels are rounded and the front and central vowels are unrounded. The following words illustrate the *contrasts*.

A. Contrasts between short vowels :

1. im	'live'	2. tip	'know'	3. ti?	'dig'
em	'well-to-do'	tep	'buy'	te?	'bind'
ɨm	'not'	tap	'cover'	ta?	'rub'
am	'bite'	top	'drum'	to?	'peck'
um	'water'	tup	'cannon'	tu?	'steal'

4. ɨm ʃɨm 'past neg. marker'
 ʃim 'take'

B. contrasts between *long vowels*— here, not many contrasts are available—

/e:/	-	/o:/		/a:/	-	/e:/
be:r		'sprinkle'		a:r		'two'
bo:r		'strength'		be:r		'sprinkle'

2.2.2. Consonants :

2.2.2.1. **Stops** : Stops have five points of articulation which are distinctive. Though they do not have a symmetrical system of contrast, they have contrast between

1. Voiceless Vs. Voiced ; and
2. Unaspirated Vs. aspirated.

Illustrations :

1. Voiceless stops Vs. Voiced stops :

/p/ - /b/ i.pa? 'answer'
 ba? 'carry' (on one's back)

2.2.2.3. **Nasals** : Show contrast in four positions corresponding to first four positions of stops. The following contrasts illustrate this—

/m/ - /n/	meʔ	‘glow’
	neʔ	‘stick’
/m/ - /ɲ/	myaw	‘cat’
	ɲyaw	‘count’
/m/ - /ŋ/	nam	‘bad newes’
	ŋam	‘sink’

/m/ - /n/ ~ /ɲ/ - /ŋ/

rem ‘dear’	tham ‘crab’
ren ‘a sea- monster’	than ‘too; excessively’
reɲ ‘louse’	thaɲ ‘weave’
reŋ ‘horn’	thaŋ ‘burn’

2.2.2.4 **Fricatives**: We have already illustrated the contrasts between glottal fricative and glottal stop. Here we illustrate the contrast between alveolar and palatal fricatives.

/s/ - /ʃ/	sa:d	‘camb’	soŋ	‘fold’
	ʃa:d	‘dance’	ʃoŋ	‘ride’

2.2.2.5. Contrasts between *trill and lateral* :

/r/ - /l/	raŋ	‘cease to rain’
	laŋ	‘together’
	raʔ	‘carry ; lift’
	laʔ	‘able/can’

2.2.2.6. Contrasts between frictionless *continuants* :

/w/ - /y/	khaway	‘festival’	wa:d	‘find’
	khayi	‘trade’	ya:r	‘breadth’

2.3 Distribution of phonemes : The following table gives the distribution of the phonemes in terms of their occurrence in initial, medial and final positions.

	<i>Phonemes</i>	<i>Initially</i>	<i>Medially</i>	<i>Finally</i>
Vowels :	/i/	+	+	+
	/i:/	+	+	—
	/e/	+	+	+
	/e:/	+	+	—
	/ɨ/	+	+	—
	/a/	+	+	+
	/a:/	+	+	—
	/o/	+	+	+
	/o:/	—	+	—
	/u/	+	+	+
	/u:/	—	+	—
Consonants :	/p/	+	+	+
	/ph/	+	+	—
	/b/	+	+	+
	/bh/	+	—	—
	/t/	+	+	+
	/th/	+	+	—
	/d/	+	+	+
	/dh/	+	+	—
	/j/	+	+	+
	/jh/	+	—	—
	/k/	+	+	+
	/kh/	+	+	—
	/ʔ/	—	+	+
	/m/	+	+	+
	/n/	+	+	+

/ñ/	+	+	+
/ŋ/	+	+	+
/s/	+	+	(+)
/š/	+	+	—
/h/	+	+	—
/r/	+	+	+
/l/	+	+	(+)
/w/	+	+	+
/y/	+	+	+

Note : (s) and (l) occur in final position only in borrowed words. That too in only two items. So they are put in the brackets.

2.4 Consonant Clusters :

In Khasi consonant clusters occur in the initial as well as in the medial positions. Two member clusters are more frequent than three member clusters. In the final position no clusters occur except for —yt and —yd. First, clusters in initial position are dealt with followed with clusters in the medial position.

2.4 1. Initial clusters :

‘Release’ : In the initial position all consonants, except nasals and frictionless continuants, have a vocalic release when they occur with consonants other than trills, laterals and frictionless continuants. As this vocalic release is very short and predictable, it is not considered separately ; and the consonants involved in this, are treated as consonant clusters, as others. (Sec. 3.2.2).

In this position two consonant clusters are very frequent as compared to 3-member clusters. These are the possible combinations.

↓ first member	succeeding members→																			
a	p	b	t	th	d	j	k	kh	ʔ	m	n	ñ	ɲ	s	š	r	l	w	y	
p					x	x			x		x					x	x		x	
ph																x	x			
b			x	x	x						x			x		x	x		x	
t		x			x					x	x					x	x		x	
th										x	x		x			x	x		x	
d	x						x	x											x	
j													x			x	x		x	
k	x	x	x	x	x	x			x	x	x			x	x	x	x	x	x	
kh	x		x							x	x					x	x		x	
m																x	x		x	
n																			x	
ñ																			x	
s	x	x	x		x		x	x	x	x	x		x				x			
š							x		x		x	x				x	x		x	
h									x										x	
r		x						x	x		x		x						x	
l	x	x			x		x	x												
w																			x	

Generalizations : From the above chart; it will^o be clear that Khasi is enormously rich in initial consonant clusters. It might appear at first sight that just about any combination is permitted. On closer observation, it will be seen that sequences of consonants with the same place of articulation are not permitted. Exceptions to this above rule are *tn-*, *tr-* and *tl-* clusters; while clusters *thn-*, *thr-*, *thl-*, clusters have dental as the first member and alveolar as the second member.

2. 4. 1. 1. Examples

pd-	pdem	'to dip' (in water)
pj-	pja?	'cold'
p?-	p?aŋ	'to straddle'
pn-	pnat	'tributary'
pr-	prek	'iron nail'
pl-	pla	'pocket'
py-	pyat	'onion'
phr-	phra	'eight'
phl-	phlaŋ	'grass'
bt-	bteŋ	'continue'
bth-	bthiŋ	'light'
bd-	bdi	'(one) twenty' (20)
bn-	bneŋ	'heaven'
bs-	bsa	'to feed'
br-	bret	'to throw'
bl-	blaŋ	'goat'
by-	bya?	'to change' (money)
tb-	tba	'to touch, feel'
td-	tdem	'smoke'
tm-	tmo?	'chin'
tn-	tnat	'branch'
tr-	trey	'work'
tl-	tlaŋ	'winter'
ty-	tyar	'tool'
thm-	thma	'war'
thn-	thnum	'mermer'
thŋ-	thŋan	'hunger'
thr-	thriŋ	'crane'
thl-	thliew	'hole'
thy-	thya?	'to sleep'
dp-	dpey	'ash'
dk-	dka:r	'turtle'
dkh-	dkhev	'wasp'
dy-	dyaŋ	'left' (hand)

jŋ-	jŋa:y	'far'
jr-	jri	'rubber'
jl-	jli?	'smooth'
jy-	jya	'to happen'
kp-	kpa	'father'
kb-	kba?	'paddy'
kt-	kti	'hand'
kth-	ktha	'chew' (food)
kd-	kdew	'hint'
kj-	kjat	'foot'
k?-	k?eŋ	'a wasp'
km-	kmie	'mother'
kn-	knup	'khasi leaf umbrella (like a shell)'
ks-	ksi	'louse'
kš-	kšayd	'waterfall'
kr-	krem	'cave'
kl-	klo:y	'quickly'
kw-	kwa?	'want'
ky-	kyar	'avoid'
khp-	khpu?	'loaf' (of bread)
kht-	khta:w	'father-in-law'
khm-	khmat	'eye'
khn-	khna:y	'rat'
chr-	chrum	'basement'
khl-	khlie?	'head'
khy-	khya	'heavy'
mr-	mra:d	'animal'
ml-	mlu?	'salt'
my-	myanmyan	'softly'
ñy-	nyam	'religion'

sp-	spe?	'sprout'
sb-	sbo?	'fertile'
st-	stet	'fast'
sd-	sde	'axe'
sk-	ska:ñ	'fly'
skh-	skhem	'firm'
s?-	s?ep	'sweat'
sm-	sma?	'smell'
sn-	snar	'peg'
sŋ-	sŋi	'day'
sl-	slap	'rain'
šk-	ško:r	'ear'
š?-	š?a?	'thorn'
šn-	šnat	'tributary'
šñ-	šñuo?	'hair'
šr-	šrie?	'monkey'
šl-	šlur	'brave'
šy-	šya?	'allow'
h?-	h?o:yd	'yes'
hy-	hyar	'descend'
rb-	rben	'thick'
rkh-	rkhie	'laugh'
r?-	r?eŋ	'swollen'
rn-	rnoŋ	'brass'
rŋ-	rŋa	'charcoal'
ry-	ryam	'catch' (animals)
lp-	lpa	'already'
lb-	lboŋ	'thigh'
ld-	ldoy	'hanging' (something)
lkh-	lkhoyt	'like a small lump'
l?-	l?o?	'cloud'
wy-	wyar	'bark'

The following 3 member clusters *are found-*

pd̥y-	pd̥yaŋ	'receive'
ph̥ry-	ph̥rya	'hailstone'
ph̥ly-	ph̥lyəʔ	'flicker'
b̥ny-	b̥nyat	'tooth'
t̥by-	t̥byan	'bottom'
th̥ry-	th̥ryaŋ	'firmly'
j̥ly-	j̥lyəʔ	'lick'
kh̥ñy-	kh̥ñyaŋ	'insert'
kh̥ry-	kh̥ryat	'cold'
s̥ʔy-	s̥ʔyar	'hen'
ʃ̥ñy-	ʃ̥ñyaʔ	'chisel'

2.4.2. Chart Illustrating Medial Two-consonant Clusters

First member	Succeeding member																		
	p	ph	b	bh	t	th	d	j	k	kh	m	n	ñ	s	š	h	r	l	w y
p	x	x					x	x	x	x	x			x	x	x		x	
b			x				x	x	x								x		
t				x			x	x		x				x	x	x	x		
th																			x
d							x			x				x		x	x		
j											x	x					x		
k			x								x	x		x			x		x
?																			
m	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x			x
n	x		x		x	x	x	x		x	x	x	x	x	x	x	x	x	x
ñ	x	x	x		x	x	x	x	x	x	x	x		x	x	x	x	x	x
ɬ	x	x	x		x	x	x	x	x	x	x	x		x	x	x	x	x	x
s	x		x				x		x	x									
ʃ											x					x			
r	x	x	x		x	x	x	x	x	x	x	x		x	x	x		x	x
l											x						x		
w		x	x	x		x	x	x	x	x	x	x		x	x		x	x	x
y	x	x	x		x	x	x	x		x	x	x		x	x	x	x	x	x

Medial Consonant Clusters :**2.4.2.1. Two Consonant Clusters**

The consonant clusters are very frequent in this position. Here listed only the possible combinations with illustrations.

-pp-	khappo:d	'near the hill'
-pph-	stepphir η ap	'dawn'
-pb-	slapba?	'heavy rain'
-pd-	sapdok	'a man who is short and stout'
-pj-	yapjillop	'to drown'
-pk-	snepko:r	'coconut'
-pkh-	pinhapkh η u:n	'to abort'
-pm-	tapmo?khlie?	'a big garment' (to cover the head)
-p η -	sep η i	'West'
-ps-	snepso?	'to peel'
-pš-	yapši:lya η	'paralysis'
-pl-	aplo η brot	'watch sheep'
-py-	khapya?	'sliced fish'
-bd-	do:bdo:b	'slowly and steadily'
-bj-	kobja	'hinge'
-br-	khabrip	'to blink'
-bl-	khuble η	'to bless'
-tp-	baritpa:y η d	'minority'
-tb-	metba?	'trunk' (of a tree)
-tt-	sotti	'pure'
-tj-	iye η šatja	'kitchen'
-tkh-	kotkhubo:r	'newspaper'
-tš-	otše:r	'to circumcise'
-tr-	otraši	'saw' (n)
-tl-	patlun	'trouser'
-th-	banyatha:ti	'ivory'
-ty-	khapu:tya	'a variety of fish'

-dd-	ro:ddu:riyaw	'shore'
-dkh-	khadkhinday	'nineteen'
-ds-	khadsan	'fifteen'
-dh-	khadhinñiew	'seventeen'
-dl-	bo:dlu:m	'backbone'
-dw-	khadwey	'eleven'
-jn-	kha:jna	'tax'
-jŋ-	šajŋa:y	'aloof'
-jr-	šajron	'up'
-kb-	surokba?	'street'
-km-	ya:ydsakma	'to move'
-kn-	pu:kni	'eagle'
-ks-	nuksa	'sample'
-kr-	šakri	'servant'
-kl-	bakla	'to make mistake'
-ky-	sakya?	'to hiccup'
-khl-	pu:khleñ	'a kind of eatable'
-?p-	so?pet	'navel'
-?ph-	so?phan	'jackfruit'
-?b-	le?bo:r	'violence, force'
-?bh-	le?bha	'to treat well'
-?th-	thya?tha:y	'to liedown'
-?d-	bu?dak	'to engrave'
-?j-	po?jat	'sole of a foot'
-?k-	sa?küt	'to get stuck'
-?kh-	do?kha	'fish'
-?m-	so?minken	'chilly'
-?n-	do?nu:d	'heart'
-?ŋ-	mi?ŋi	'east'
-?s-	nu?sip	'omen'
-?h-	sa?haju	'to remain in one place'
-?y-	le?yabe?	'a native game'

-mp-	tɪmpew	'betal leaf'
-mb-	tɪmbuyt	'elbow'
-mbh-	khambha	'to excel'
-mt-	khlemte?	'to untie (a knot)'
-mth-	ba:mthan	'glutton'
-md-	lo:mdiŋ	'volcano'
-mj-	imju	'never'
-mkh-	ba:mthana	'picnic'
-mm-	ummat	'tear'
-mn-	kumno	'who'
-mŋ-	umŋap	'honey'
-ms-	ba:msap	'bribery'
-mš-	bimša:d	'unroll'
-mh-	ba:mbinro?	'eclipse'
-mr-	lo:mrɪt	'hillock'
-ml-	samla	'young human being'
-mw-	lamwir	'mad'
-np-	wanpat	'to rebound'
-nph-	sanphew	'fifty'
-nb-	pinbieyd	'allusement'
-nt-	banta?	'to chisel'
-nth-	mɪnθi	'stubbornness'
-nd-	rɪnda	'carpenter's plane'
-nj-	kinja	'ganja', (pɪnkhi? 'agitation')
-nm-	kɪnma:w	'to remember'
-nn-	i:tɪnnad	'beautiful'
-nñ-	hɪnñiew	'seven'
-ns-	minsiem	'spirit'
-nš-	khanši	'scissor'
-nh-	kɪnhu:n	'batch'
-nr-	pɪnsem	'to condemn'
-nl-	sɪnlen	'bald'
-nw-	pɪnwɪt	'to trust'
-ny-	šanya	'to trust'
-ñp-	ska:ñpɪrjon	'mosquito'
-ñph-	ja:ñphoŋ	'clothings'

-ñb-	ja:ñbo	'dhoti'
-ñt-	pañtali	'chisel'
-ñj-	señjirɳam	'green snake'
-ñk-	ja:ñkupa	'a kind of garment used by khasi women'
-ñm-	jiɳbuñmasi	'udder'
-ñn-	keñno	'to resign'
-ñs-	ja:ñsem	'a garment used as outer covering by khasi ladies'
-ñr-	sañroɳ	'to dye'
-ñy-	ja:ñya	'towel'
-ɳp-	jiɳpini	'indication'
-ɳph-	joɳphi	'your'
-ɳb-	liɳba	'through'
-ɳt-	teɳteɳ	'seldom'
-ɳth-	e:rlaɳthari	'whirl-wind'
-ɳd-	liɳdo?	'priest'
-ɳj-	yeɳjoyt	'to stand up'
-ɳk-	yariɳko	'rooster'
-ɳkh-	tiɳkhu?	'to collide'
-ɳm-	iyeyɳmane	'to worship'
-ɳn-	paɳnu:d	'anguish'
-ɳɳ-	piɳseɳɳe	'to check'
-ɳs-	dieɳso?pieɳ	'mango tree'
-ɳʂ-	tiɳʂa:ñ	'dazzling'
-ɳh-	riɳheɳ	'to keep completely open (door out)'
-ɳr-	jiɳri?	'to belch'
-ɳl-	khaɳlad	'to obstruct'
-ɳy-	tuɳyoɳ	'dried small fish'
-sp-	sispa?	'one hundred'
-sb-	esbad	'steel'
-sd-	jasdie	'fried rice'
-sk-	puriska:m	'fiction, myth'
-skh-	atoskhana	'chimney'
-sl-	khuslay	'to mourn'

-šn-	bi:šni	'to hate'
-šr-	yašriem	'similar'
-šy-	šišya	'to deny'
-rp-	tirpeŋ	'shoulder'
-rph-	a:rphew	'twenty'
-rb-	kirbeyt	'to stretch'
-rt-	sirti	'file'
-rth-	pirthat	'thunder'
-rd-	kirdem	'to stamp'
-rj-	jarjar	'secret'
-rk-	ke:rkut	'to surround'
-rkh-	pirkhiŋ	'strict'
-rm-	thurmer	'recklessly'
-rn-	tirnem	'hammer'
-rŋ-	jirŋam	'green'
-rs-	tirsimp	'claw'
-rš-	pīršaŋ	'to examine'
-rh-	jirho?	'to cough'
-rw-	tirwa	'to offer'
-ry-	bi:rya	'amuse'
-lm-	kulma:r	'confuse'
-ln-	šalni	'sieve'
-ll-	pilleŋ	'egg'
-ly-	salya	'to bother'
-wph-	sa:wphew	'forty'
-wb-	ñiewbeñ	'to despise'
-wbh-	sŋewbha	'to feel good'
-wth-	ma:wtho?	'slate-pencil'
-wd-	sa:wdoŋ	'square'
-wj-	ma:wjiŋkieŋ	'staircase'
-wk-	ma:wkirdon	'step'
-wkh-	ma:wkhar	'village name'

-wm-	tiewmuŋo:r	'mary gold flower'
-wn-	khiewnar	'metalpot'
-wŋ-	rewŋap	'bee-hive'
-ws-	sŋewsi?	'to annoy'
-wš-	ma:wšinrot	'touch-stone'
-wr-	riewraŋba	'headman'
-wl-	dewlinnoŋ	'island'
-wy-	dewyoŋ	'coal'
-yp-	na:ypilaŋ	'rat (found in the field)'
-yph-	la:yphew	'thirty'
-yb-	a:ybi?	'to prison'
-yt-	ja:ytu?	'lazy'
-yth-	bleythaw	'image'
-yd-	malaydud	'cream of milk'
-yj-	ja:yja:y	'innocent'
-ykh-	ra:ykho?	'thin'
-yn-	baynoŋ	'reward'
-yŋ-	bayŋonsa:w	'tomato'
-ys-	bayseŋ	'capital'
-yš-	sa:yšarak	'wick'
-yh-	meyhep	'maternal grand mother'
-yr-	meyrit	'mother's younger sister'
-yl-	khayla	'ear ornament'
-yw-	kulaywa?	'hippopotamous'

2.4.2.2. Three consonant clusters :

-pkhm-	khabripkhmat	'wink'
-pñy-	thapñyaŋ	'wing'
-psb-	hapsebak	'fall'
-psŋ-	sepsŋi	'sunset'
-tbn-	metbneŋ	'planet'
-tkp-	setkpo?	'constipation'
-tkhm-	yitkhmat	'spectacles'
-tkhn-	ma:wsya- tkhnam	'a village name'

-tmy-	atmyaŋ	'to have mumps'
-tñy-	phutñyut	'weed, (remove weed)
-tsŋ-	khotsŋewbha	'welcome' (kjatsŋi 'ray')
-dphr-	khadphra	'eighteen'
-dkm-	ša:dkmen	'rejoice'
-dst-	tiedstiŋ	'tap' (knock lightly)
-khly-	jakhlya	'dirty'
-?br-	so?brab	'a variety of fruit'
-?by-	bu?byaŋ	'putback'
-?tr-	so?trun	'pineapple'
-?ks-	bsu?ksa:y	'thread' (a needle)
-?kl-	le?klep	'ambush'
-?ky-	so?khya	'cucumbir'
-?kht-	sŋewsi?khtaŋ	'resent'
-?mr-	so?mrit	'pepper'
-?ñy-	so?ñyamtra	'orange'
-?sn-	mi?sna:m	'bleed'
-?sŋ-	mi?sŋi	'sunrise'
-?sl-	sa?slem	'last' (stay in condition)
-?sk-	sa?ško:r	'listen'
-?šn-	raŋba?šnoŋ	'headman' (of the village)
-?šy-	so?šyap	'berry'
-mbn-	ba:mbna:y	'board' (v)
-mbr-	laba:mbriew	'man eater' (tiger)
-mkt-	tirsimkti	'finger nail'
-mkl-	kemklo:y	'grasp'
-mkhr-	demkhrup	'kneel down'
-msŋ-	bimsŋewtinnad	'dislike'
-mrkh-	phu?samrkhie	'smile' (v)
-npj-	pinpja?	'cool' (v)
-npr-	banpru:d	'scratch'
-npl-	banplied	'to open'

-nbt-	banbtuyt	'to slip'
-nbn-	p̄inbna	'fire notice'
-nbs-	banbsa	'to feed'
-nbr-	banbret	'to throw sway'
-ntr-	bantrey	'to work'
-ntl-	bantlar	'to fade'
-nthn-	p̄inthnam	'to boil'
-nthl-	banthli?	'to chop'
-ndk-	bandkut	'to break'
-ndy-	kh̄indyat	'some'
-njŋ-	banjŋi	'to swim'
-njr-	kinjri	'chain'
-njl-	p̄injli?	'to scrape'
-nkb-	bankbo?	'to scratch'
-nkt-	bankta?	'to finger' (an instrument)
-nkth-	banktha	'to chew'
-nkd-	p̄inkdo:r	'to plait'
-nkj-	menkjat	'front of the side'
-nkm-	bankmen	'to enjoy'
-nks-	banksam	'tease ; prick'
-nkr-	bankren	'to speak'
-nkl-	bankli?	'to fold'
-nkhm-	bankhmat	'to look at'
-nkhñ-	bankhñium	'to frown'
-nkhr-	p̄inkhre?	'prepare'
-nkhl-	p̄inkhla:d	'to separate'
-nml-	p̄inmlien	'to practice'
-nñy-	kh̄inñyo?	'shake'
-nst-	minstep	'morning'
-nsd-	bansdaŋ	'begin'
-nskh-	p̄inskhem	'tighten'
-nsm-	bansma?	'to smell'
-nsn-	bansnie?	'to skin'
-nsŋ-	bansŋew	'to feel' ; minsŋi 'day time'
-nsl-	banslem	'to long for'
-nšn-	banšna	'to bore' (a hole)
-nšr-	banšroñ	'to rattle'

-nsl-	bansley	'to overflow'
-nhy-	pinhyarjiηkit	'unload'
-nrb-	pinrben	'to thicken'
-nry-	sinrya?	'sneeze'
-ñbn-	suñbneη	'sky'
-ñthl-	señthli	'a kind of poisonous snake'
-ñny-	ja:ñnya:d	'towel'
-ñsp-	ja:ñsponη	'turban'
-ηbr-	laηbrot	'sheep'
-ηtr-	iyeηtrep	'hut'
-ηtl-	dieηtla:y	'palmtree'
-ηthm-	jiηthmu	'aim'
-ηthy-	jiηthηan	'hunger'
-ηdkh-	liηdkhur	'pigeon'
-ηjr-	jiηjronη	'height'
-ηkp-	paηkpo?	'have stomach ache'
-ηkt-	rindaηkti	'wrist'
-ηkd-	liηkdop	'small'
-ηkj-	puηkjat	'leg'
-ηkm-	jiηkmen	'happiness'
-ηks-	dieηkse?	'pine tree'
-ηkr-	waytiηkronη	'knife used to cut meat'
-ηkhr-	noηkhronη	'begger'
-ηkhl-	tuηkhleñ	'dried small fish'
-ηsb-	jiηsbun	'generosity'
-ηskh-	jiηskhem	'firmness'
-ηsn-	dieηsnepko:r	'coconut tree'
-ηsl-	jiηslor	'courage'
-ηry-	so?naηryaη	'a kind of fruit'
-ηl?-	roηl?o?	'very light blue'
-str-	estri	'iron-box'
-rthm-	hyarthma	'invade'
-rkp-	pinyarkput	'average'

-rkm-	paraa:rkmiē	'cousin' (motherside)
-rkhm-	durkhmat	'entire face'
-rkhw-	narkhwa:y	'fishing hook'
-rny-	thirnya	'needle'
-rsl-	po:rslap	'rainy season'
-rsy-	mirsyay	'fox'
-ršy-	piršya?	'opposite ; against'
-lby-	spelbyay	'repeat'
-lhy-	alhya	'lazy ; idle'
-lly-	tillyat	'grind'
-wphy-	kiewphya	'brass vessel or jar'
-wbth-	sa:wbthou?	'brown'
-wby-	siewbyay	'repay'
-wkm-	snewkmen	'excitement'
-wkhm-	thliewkhmut	'nostril'
-wkhr-	riewkhra:w	'greatman'
-wkhl-	miewkhla:w	'wild cat'
-wsp-	riewspa?	'richman'
-ws?-	ja:ws?ep	'perspire'
-wsy-	sintiewsy	'sunflower'
-wly-	tawlya	'towel'
-ypd-	jaypde	'lazy'
-yby-	a:ybyan	'return'
-ytp-	leytpeyt	'visit'
-ytph-	leytpha:y	'return' (go back)
-ytt-	wayttiηkron	'knife used to cut meat'
-ytth-	peytthu?	'reorganize'
-ytk-	peytka:y	'see for pleasure'
-ytd-	laytdo?	'sprain'
-ytj-	leytjiηleyt	'travel'
-ytm-	eytmūt	'mucus'
-ytn-	leytno?	'go away'
-ytη-	peytηo:r	'to keep watch'
-yts-	buytsinša:r	'policy'
-ytš-	leytša:w	'fetch'

-ytr-	p̄insuytroŋ	'bleach'
-ytl-	waytlam	'sword'
-ydp-	ya:ydpirthey	'go around' (the world)
-ydk-	ya:ydkumkhan	'paddle' (v)
-yds-	ya:ydsakma	'strangle'
-ydr-	ieydri	'patriot'
-ydl-	ya:ydl̄inti	'travel'
-yny-	yataynya	'discuss'
-ysn-	poysnam	'bleed'
-ysŋ-	a:ysŋewbha	'chant'
-yšy-	ya:yšya	'tolerance'

2.4.2.3. Four consonant clusters :

-mpry-	simpryaʔkti	'finger'
-mph̄ñy-	umph̄ñyaŋ	'oil'
-npdy-	banpdyaŋ	'to admit'
-nphry-	p̄inphryaŋ	'scatter'
-nphly-	p̄inphlyaʔ	'flicker'
-nkh̄ñy-	bankh̄ñyot	'to squeeze'
-nkhry-	bankhryat	'shiver'
-nsʔy-	khu:nsʔyar	'chicken'
-ŋbsy-	ñyaŋbsyaʔ	'lizard'
-ytbn-	waytbnoʔ	'knife with a hook at the end'
-ytsy-	peytsyar	'to peep'
-yddk-	ya:yddkoʔ	'to limp'

2.4.3. In final position only two consonant clusters occur. They are -yt and -yd.

e.g.	-yt	payt	'to break'
		dayt	'to bite'
	-yd	ieyd	'to love'
		pa:yd	'crowd'

3. DESCRIPTION OF KHASI SPEECH SOUNDS

3.1. Vowels :

3.1.1. The vowel sounds of Khasi at the phonetic level are tabulated below :

	Front	Central	Back
high	i i:	ɨ	u u:
highermid	e e		o o
mid	e:		o:
lowermid	E		O
low		a a a:	

Diphthongs :

ie	uo
iu	oa

3.1.2. These vowel sounds are classified into 11 groups depending upon their phonemic status.

1. [i] ;
2. [i:] ;
3. [e] includes [e] [e] and [E] ;
4. [e:] ;

5. [ɪ] ;
6. [a]: include [a], and [a] ;
7. [a:] ;
8. [o] includes [o], [ɔ] and [o] ;
9. [o:] ;
10. [u], and
11. [u:] .

The diphthongs are described in the respective sections under vowels.

3.1.3. Before going into the details, it is necessary to note a few features of vowels which are common to all or most of the vowels ; and their mention is not made in their individual description.

1. All vowels are orally produced. That is, in the production of vowels the velic passage is closed and the oral passage is open.
2. All vowels are voiced. That is, in the production of vowels the vocal cords vibrate.
3. All front vowels are spread or unrounded (lip position); and all back vowels are rounded.
4. All long vowels have restricted occurrence and only a limited number of words with the long vowels are found in the data.

3.1.4. /i/ is realized as [i] everywhere.

It is produced by raising the front part of the tongue towards the hard palate as high as possible ; but not so much as to touch the hardpalate or create any friction therein. During the production of this sound the lips are spread. This vowel is called the high front short vowel.

It occurs in the following environments-

Initially	<i>before a consonant.</i>
im	'live' (v)
iŋ	'burn' (v)
iyen	'house'
isbad	'steel'

Medially	between consonants	Finally after a consonant
tip	'know'	phi 'you'
tim	'curse' (v)	ki 'they'
sim	'bird'	ŋi 'we'
šim	'take'	ri 'country'
siŋ	'lion'	sati 'ring'
šida	'simple', 'innocent'	

3.1.5. /i:/ is realized as [i:] every where

In the production of this vowel the tongue height is the same as that for (i); the duration is longer, than for the shorter variety. It is called the high, front, long vowel.

It occurs in the following environments-

Initially before consonants	Medially before a consonant
i:si? 'dislike'	si:ma:d 'bedbug'
i:širkhey 'terrific'	
i:šinney 'pity'	

3.1.6. /e/ has three variants viz (i) [e], (ii) [ɛ], and (iii) [E]. (i) [e] is produced by raising the front part of the tongue towards the hard palate to a level slightly higher than half the height of the oral cavity, and the lips are spread. This vowel is slightly higher than the cardinal vowel [e]. It is called the higher-mid, front, short vowel.

It occurs in the following environments-

Initially before consonant	Medially between consonants
em 'well-to-do'	nep 'sharp'
	ber 'like-flash'
	jem 'soft'
	rem 'dear' (costly)
	reŋ 'horn'
	met 'body'

Finally after consonants

kane	'this'
me	'thou'
ti:kme	'thumb'

It occurs in all the above environments except before a glottal stop.

ii) [ɛ] is shorter variety of [e]. It occurs after [i] only, to form a progressive diphthong. It occurs in medial and final positions, only with [i].

[kiɛŋ]	'ladder'	/kiɛŋ/	[diɛ]	'sell'	/die/
[sdiɛŋ]	'hang'	/sdiɛŋ/	[priɛ]	'vomit'	/prie/
[diɛŋ]	'back'	/diɛŋ/	[khiɛ]	'raise'	/khie/

iii) [E] is produced by raising the front part of the tongue towards the hard palate to a level slightly lower than half the height of the oral cavity and the lips are spread. This vowel is slightly lower than the cardinal vowel [e]. It is called the lower mid, front, short vowel.

It occurs initially, medially before [ʔ] only.

[Eʔ]	'hard'	/ɛʔ/
[PEʔ]	'sieve'	/peʔ/
[lEʔ]	'do'	/leʔ/
[hEʔ]	'big'	/heʔ/

3.1.7. /e:/ is realized as [e:] everywhere.

It is produced by raising the front part of the tongue towards the hard palate exactly half the height of the oral cavity and the duration is long. This vowel is similar to the cardinal vowel [e] in height and lip position.

It is called the mid, front, long vowel.

It occurs initially and medially in few forms only.

e:m	'not'
be:r	'well-to-do'

3.1.8. /i/ is realized as [i] every where.

It is produced by raising the centre of the tongue towards the roof of the mouth where the hard and the soft palates meet. The lips are in neutral position. It is called the high, central, short vowel.

It occurs in the following environments-

1. Initially before consonants—

im	'not'
in	'future tense marker'

2. Medially in c_1-c_2 [c_3] environment; where c_1-c_2 # [j—ŋ].

c_1 stands for any consonant; and

c_2 stand for a nasal, r or l.

Examples :

min	'ago'
binta	'part'
jirŋam	'green'
killa	'charge'
tirsim	'claw'
sintiew	'flower'
simba:y	'seed'
liŋka	'crow-bar'
sirti	'file'

3.1.9. /a/ has two variants, viz. [a] and [a̠].

(i) [a̠] is produced when the centre of the tongue is low; and the lips remain in the neutral position. It is called the low, central short vowel.

It occurs in the following environments-

Initially before consonants

ale	'come'
aŋ	'open'
ap	'wait, watch'

Medially between consonants

tap	'cover'
dap	'be full' (v)
yap	'die'
tad	'cheap'
jam	'make noise'
nan	'pool'
saŋ	'basket'

Finally after consonants

ka .	'she'
na	'from'
ha	'to'
sla	'leaf'
ŋa	'I'

2. [a] is shorter variety of [a]. It occurs after [o] only to form a progressive diphthong. It occurs only in final, position in one item only. eg. [khaboa] 'a variety of fish' /khaboa/.

3.1.10. /a:/ is realized as [a:] every where.

In the production of this vowel the tongue height is lower than for the short [a] but the duration is longer than for the short variety, while other conditions remain same. It is called the low, central, long vowel.

It occurs in the following environments—

<i>Initially before consonants</i>	<i>Medially between consonants</i>
------------------------------------	------------------------------------

a:r	'two'	pa:n	'ask'
a:rtatien	'doubt'	ma:d	'taste' (v)
a:y	'give'	sa:d	'dance'
		ŋa:b	'check'
		ja:m	'step' (v)

3.1.11. /o/ has three variants viz.(i).[o], (ii).[o] and (iii).[O].

(i) [o] is produced by raising the back part of the tongue towards the soft palate to a level slightly higher than half the height of the oral cavity and the lips are rounded. This vowel¹ is slightly higher than the cardinal vowel [o]. It is called the higher-mid back, short vowel.

It occurs in the following environments—

Initially before consonants

oŋ	'say'
ot	'cut'

Medially between consonants

sop	'cover'
thok	'lie' (utter false hood)
mon	'prefer'
dom	'anger'
jop	'succeed'
kot	'reach'
tor	'lung'

Finally after consonants

uno	'who'
tirso	'mustard'

[o] occurs in all the above environments except before a glottal stop. (ii). [ɔ] is shorter variety of [o]. It occurs only after [u] or [u:] to form a progressive diphthong. It occurs only in medial position.

[ʃñuɔʔ]	'hair'	/ʃñuo/
[pu:ɔr]	'string'	/pu:or/
[tru:ɔd]	'scratch'	/tru:od/
[nuɔd]	'kernal'	/nuod/

(iii). [O] is produced by raising the back part of the tongue towards the soft palate to a level slightly lower than half the height of the oral cavity and the lips are rounded. This vowel is slightly lower than the cardinal vowel [o]. It is called the lower-mid, back, short vowel.

It occurs medially before [ʔ] only.

[dOʔ]	'kiss'	/dOʔ/
[ʃOʔ]	'strike'	/ʃoʔ/
[sOʔ]	'fruit'	/soʔ/
[yOʔ]	'get'	/yoʔ/

3.1.12. /o:/ is realized as [o:] every where.

[o:] is produced by raising the back part of the tongue towards the soft palate exactly half the height of the oral cavity and the duration is long. This vowel is similar to the cardinal vowel [o] in height and lip position.

It is called the mid, back, long vowel.

It occurs medially only—

bo:r	'power'
po:r	'time'
klo:y	'quickly'

3.1.13. /u/ is realized as [u] every where.

1. [u] is produced by raising the back of the tongue as high as possible towards the soft palate but not so as to create any contact or friction with the soft palate. During the production of this sound the lips are rounded.

This is called the high, back, short vowel.

It occurs in the following environments—

Initially before consonants *Medially between consonants*

u	'he'	put	'blow'
um	'water'	puŋ	'lake'
ur	'fall' (down)	suki	'slow'
		sum	'bathe' (v)
		ju?	'same'
		ru?	'also'

Finally after consonants

ju	'ever'
thmu	'aim'

3.1.14. /u:/ is realized as [u:] every where.

In production of this vowel the tongue height is as that for [u]; but the duration is longer than for the shorter variety. It is called the high, back, long vowel.

It occurs medially only—

pu:d	'bridge'
bu:d	'copy', 'follow'
pu:kni	'eagle'
bu:n	'many'

3.1.15. **Vowel Diphthongs.**

Diphthongs are those in which there is glide from one vowel to another. In the process one vowel will be the nuclear

and the other non-nuclear or peripheral. The first vowel gives the starting point for the glide and the second the direction of the movement of the glide. In Khasi only progressive diphthongs are noted.

In Khasi diphthongs with only two vowels are found. They are found in the medial and final positions. These are the diphthongs—

<i>Medially</i>	<i>Finally</i>
ie	ie
iu	iu
uo	
	oa

As can be noted from above, the central high vowel (/i/) does not take part in the formation of diphthongs. Among these the 3rd does not occur in final position and *oa* does not occur in the medial position.

These diphthongs are already described in the sections on /e/; /u/, /o/ and /a/.

3. 1. 16. A Note On Vowel Clusters—

Vowel sequences when they occur across morpheme boundaries, constitute vowel clusters. Here, both the vowels are syllabic and constitute nuclei of different syllables; unlike in vowel diphthongs where one vowel is syllabic and another nonsyllabic and constitute one syllable.

These are not many. In the data these vowel clusters are noted.

ue-	uey	'what'
-ie-	kiey	'what' (pl)
-ae-	kaey	'what'

The vowel clusters are found in initial and medial positions only as above.

Though the vowel clusters of the above type is found mainly across morpheme boundaries ; there are a few morphemes where this situation exists though it does not fulfil the above conditions.

eg.	kaut	'to whip'
also-	briew	'human being'
	bicyd	'foolish'
	jilliew	'depoth'
	liur	'summer'

3.2. Consonants

3.2.1. The consonant sounds of Khasi at the phonetic level are tabulated below—

	<i>Bila- bial</i>	<i>Alveo- lar</i>	<i>Pala- tal</i>	<i>Velaur</i>	<i>Glo- ttal</i>
Stops-voiceless un-aspi.	p	t		k	ʔ
voiceless aspi.	ph	th		kh	
voiced un-aspi.	b	d	j		
voiced aspi.	bh	dh	jh		
Nasals	m	n	ɲ	ŋ	
Fricatives		s	ʃ		h
Trills		r ɾ			
Lateral		l			
Fricgtionless Continuants	w W			y Y	

3.2.2. Before starting description of Consonants two points should be noted—

1. In the initial position all consonants except nasals and frictionless continuants have a vocalic release when they occur with consonants other than trills, laterals and frictionless continuants. As this vocalic release is a general characteristics it is not transcribed separately, elsewhere. This may be marked by using '˘' below the consonant clusters.

e.g.	k˘baʔ	'paddy'	ɾpɔŋ	'brass'
	k˘jat	'foot'	l˘bɔŋ	'high'
	b˘sa	'feed'		
	t˘dem	'smoke'		
	s˘die	'fry'		
	r˘ben	'thick'		

2. When the stops occur in the final¹ position, the release is only slightly heard. If they occur after a *sequence of two vowels* or after a diphthong, the release is not heard at all and therefore different stops occurring in that position cannot be easily distinguished.

ap	'wait'	btuyt	'slip'
kjat	'leg'	kaut	'to whip'
mra:d	'animal'	kha:yd	'eczema'
		payt	'to break'
		pa:yd	'crowd'
		kha:yt	'ring worm'

Description of stops :

3.2.3. /p/ is realised as [p] every where.

It is produced by stopping the air column by bringing the lowerlip into firm contact with the upper lip. During the closure the vocal cords do not vibrate. However before the release the vocal cords come together and start vibrating so that when the stop is actually released the vocal cords are in the state of vibration.

This is called the voiceless unaspirated bilabial, stop.

This occurs in the following environments :—

<i>Initially before vowels</i>		<i>Initially in clusters</i>	
pom	'cut'	pja?	'cold'
pe?	'siene'	pla	'pocket'
po?	'make oneself low'	pdyaŋ	'accept'
puŋ	'lake'	p?yan	'firmly'
pay	'a number (8000)		
put	'blow'		

<i>Medially between vowels-</i>		<i>Medially after homorganic nasal-</i>	
rupa	'silver'	timpew	'betal leaf'
		pumpum	'dust'

¹ According to prof. E.Henderson, all final stops are voiceless.

Medially in clusters-

šaptieŋ	'fearsome'
apjar	'net' (v)
sapdok	(a man who is)
	'short & stout'
snepkor	'coconut'
thapñyaŋ	'wing'
sepŋi	'west'
khaplo:m	'near the hill'
thapbale?	'butterfly'
snepsor	'peel'

Finally after vowels-

ap	'wait'
tip	'know'
tep	'bury'
hep	'younger sister'
tup	'cannon'
top	'definitely'

3.2.4. /ph/ is realized as [ph] every where.

It is produced by closing the air column at the lips in the same way as for the unaspirated [p]; except for the fact that during the release the state of the glottis continues to be in the state of voicelessness, so that between the release of the stop and the following successive sound, a brief period of voicelessness is heard. This is called aspiration. This is called the voiceless, aspirated bilabial stop.

This occurs in the following environments—

Initially before vowels-

phut	'pullout' (tooth)
phu?	'blossom'
(uso?)pha:n	'jackfruit'

Initially in clusters-

phrya	'hailstock'
phlaŋ	'grass'

Medially between vowels-

šiphew	'ten'
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Medially in clusters-

u so?pho	'pear fruit'
atphilluŋ	'wave' (v)
u so?kinpho:r	'papaya'

It does not occur in final position.

3.2.5. /b/ is realized as [b] every where.

It is produced in the same position as for [p]: i.e. by bringing the lower lip into firm contact with the upper lip

effecting a labial closure, except for the fact that during the closure there is vibration of the vocal cords. This is called voiced, unaspirated bilabial stop.

It occurs in the following environments—

Initially before vowels-

ba	'relative pronoun'
be?	'hunt'
bir	'swamp'
bok	'luck'
bo:r	'power'
bu:d	'follow'
bu:n	'many'

Initially in clusters-

btuyt	'slip'
bthiŋ	'light' (weight)
bnyat	'tooth'
bsa	'feed'
briew	'human being'
blaŋ	'goat'

Medially between vowels

šubit	'average'
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Medially in clusters

khubleŋ	'greetings'
khabrip	'wink'
kobja	'hinge'
do:bdo:b	'slowly & steadily'

Medially after homorganic nasal *Finally after vowels-*

-mb-	'not available'	ŋa:b	'cheek'
		so?brab	'a kind of fruit'
		tiewkula:b	'rose' (flower)

3.2.6. /bh/ is realised as [bh] every where.

It is produced by closing the air column at the lips in the same way as for the unaspirated [b]. The closure is accompanied with the vibration of the vocal cords. But the release is simultaneous with the opening of the glottis so that an extra puff of air comes out through the glottis.

This sound is called the voiced, aspirated bilabial stop.

It occurs initially only-

bha	'good/very'
bho?	'desire' (impudently)

2.3.7. /t/* is realized as [t] every where.

It is produced by stopping the air column by bringing the tip of the tongue in contact with the alveolar ridge. During the closure the vocal cords do not vibrate.

It is called voiceless, unaspirated alveolar stop. It occurs in the following environments.

Medially before vowels-

tip	'know'
tap	'cover'
tep	'bury'
tey	'build'
tiŋka	'money'

Initially in clusters-

tdem	'smoke'
tmo?	'chin'
tnom	'roof'
trey	'work'
tlaŋ	'winter'
tbyan	'bottom'

Medially between vowels-

lute	'plunder'
tuta	'parrot'
šatey	'north'
šata	'there'

Medially in clusters-

iyenšatja	'kitchen'
eytmu	'mucus'
leytno?	'go away'
peytŋo.r	'be vigilant'
peytsyar	'peep'
otše:r	'circumcise'
peytka:y	'observe'
patroŋ	'pull by the hair'
matla?	'blind'
otraši	'saw'
bnyatha:ti	'ivory'

Medially after homorganic consonant Finally after vowels

sotti	'pure'	put	'blow' (trumpet)
peytdom	'look scornfully'	sut	'interest'
		phet	'free'
		šit	'fever'
		kot	'reach'

*According to Prof. E. Henderson, initial t and th are dental, while d and n are alveolar. But according to the present author t, d and n are alveolar, and th and dh are dental.

3.2.8. /th/ is realized as [th] every where.

It is produced by closing the air column by raising the tip of the tongue and making the contact on the inner surface of the upper incisors. During the release the state of the glottis continues to be in a state of voicelessness. So that between the release of the stop and following successive sound a brief period of voicelessness is heard. This is called aspiration.

It is called the voiceless, aspirated dental stop.

It occurs in the following environments—

Initially before vowels-

tha?	'rice'
thep	'vote'

Initially in clusters-

thma	'war'
th η an	'hunger'
thliew	'hole'
thrya η	'crane'

Medially between vowels-

šathie	'south'
patha:w	'a kind of pumpkin'

Medially in clusters-

kintho?	'comment'
minthi	'stubborn'
ba:mthan	'glutton'
p $\bar{i}$ rthat	'thunder'

It does not occur in final position.

3.2.9. /d/ is realised as [d] every where.

It is produced in the same position as for [t], except for the fact that during the production of this sound, there is vibration of vocal cords.

This is called the voiced, unaspirated, alveolar stop.

This occurs in the following environments—

Initially before vowels-

di η	'fire'
do?	'flesh'
dom	'danger'
du?	'lose'
dum	'dark'

Initially in clusters-

dpey	'ash'
dka:r	'turtle'
dkhew	'wasp'

Initially between vowels

ti:du?	'little finger'
muduy	'accuse'
šida	'pure'
lada	'if'
yada	'defend'

Medially in clusters

ro:ddu:riyaw	'shore'
ya:ydkumkahan	'paddle'
	(a canoe)
khadsan	'fifteen'
suydroŋ	'fade'
	(colour)
khadhinñiew	'seventeen'
bu:dlo:m	'back bone'

Finally after vowels

ša:d	'dance'
sa:d	'comb'
thied	'purchase'
tad	'cheap'
bu:d	'follow'
tied	'beat'

3.2.10. /dh/ is produced by closing the air column by raising the tip of the tongue and making the contact on the inner surface of the upper incisors. The closure is accompanied with the vibration of the vocal cords. But the release is simultaneous with the opening of the glottis so that an extra puff of air comes out through the glottis. This is called aspiration.

This is called the voiced, aspirated, dental stop.

This occurs in the following *environments*—

Initially before vowels

dhara 'a kind of cloth'

Medially between vowels

radha swan'

It does not occur in final position.

3.2.11. /j/ is realized as [j] every where.

It is produced by making a contact of the blade of the tongue against the hard palate. The vocal cords vibrate and the soft palate is raised. When the contact is released the tongue is moved down slowly so that a narrow passage is

created and the air-current escapes with friction. This sound is called the voiced unaspirated palatal affricate.

This occurs in the following environments.

As it and (jh) distributionally corresponds to the stops they are included under stops.

Initially before vowels-

ja:m	'step'
ja	'rice'
jop	'succeed'
ju?	'same'
ju	'usually'

Initially in clusters-

jri	'rubber'
jya	'happen'
jiya?	'like'
jli?	'smooth'

Medially between vowels-

dujok	'hell'
maji	'sailor'
ne?haju	'keep in'
hajan	'near'

Finally after vowels-

siej	'bamboo'
biej	'silly, foolish'
miej	'table'

Medially in clusters-

šajŋa:y	'aloof'
kha:jna	'tax'
šajroŋ	'up'

3.2.12. /jh/ is realized as [jh] every where.

It is produced by making the contact of the blade of the tongue against the hard palate. The vocal cords vibrate and the soft palate is raised. In this case the closure is accompanied with the vibration of the vocal cords. But the release is simultaneous with the opening of the glottis so that an extra puff of air comes out through the glottis. When the contact is released, the tongue is moved down slowly so that a narrow passage is created and the air-current escapes with friction. This sound is called voiced, aspirated palatal affricate.

It occurs initially only—

jhur	'vegetable'
jhie?	'wet'

3.2.13. /k/ is realized as [k] every where.

It is produced by stopping the air column by raising the back of the tongue to touch the soft palate. During the closure the vocal cords do not vibrate.

It is called the voiceless unaspirated velar stop.

It occurs in the following environments.

<i>Initially before vowels</i>		<i>Initially in clusters</i>	
ki	'they'	kpieŋ	'neck ornament'
ka	'she'	kba?	'paddy'
kiŋ	'stir'	kti	'hand'
kot	'reach'	kjat	'foot'
kut	'fort'	kmie	'mother'
		ksi	'louse'
		krem	'cave'
		klo:y	'quickly'
<i>Medially between vowels-</i>		<i>Medially in clusters-</i>	
suki	'slowly'	pu:kri	'eagle'
suko:r	'fraud'	bakla	'make (a) mistake'
rukomp	'custom' (manner)	sakya?	'hiccup'
		(ya:yɔ)	'(walk) slowly'
		sakma	
		surokba?	'street'
<i>Finally after vowels-</i>			
suk	'peace'		
hok	'true'		
bok	'luck'		
prek	'ironnail'		
dak	'alphabet'		

3.2.14. /kh/ is realised as [kh] every where.

It is produced by stopping the air column by raising the back of the tongue to touch the soft palate. During the

release the state of the glottis continues to be in the state of voicelessness; so that between the release of the stop and the following successive sound, a brief period of voicelessness is heard. This is called aspiration. This sound is called the voiceless, aspirated velar stop.

This occurs in the following environments.

<i>Initially before vowels-</i>		<i>Initially in clusters-</i>	
kha	'give birth'	khya	'heavy'
khie	'rise'	khna:y	'ret'
kha:yɔ	'eczeme'	khmat	'eye'
		khmut	'nose'
		khta:w	'father-in-law('s)
		khlie?	'head'
		khryat	'cold' (weather)
<i>Medially between vowels-</i>		<i>Medially in clusters-</i>	
yakhala:y	'gambling'	pu:khle:ñ	'a kind of dish'
		jiŋloŋbakhra:w	'greatness'
		kirkhu	'bless'
		tiŋkhu?	'collide'

It does not occur in final position.

3.2.15. /ʔ/* is realized as (ʔ) every where.

It is produced by the closure and sudden release of the vocal cords. This is always voiceless and unaspirated.

It is called the glottal stop. This occurs in the following environments.

<i>Medially between vowels</i>		<i>Medially in clusters</i>	
loʔoʔ	'cloud'	miʔŋi	'east'
yoʔi	'su'	iʔrot	'scorch'

*According to Prof. E. Henderson, [ʔ] occurs initially also, before a vowel.

Finally after vowels-

di?	'smoke'
le?	'do'
ru?	'also'
la?	'able/can'
kpo?	'belly'

It does not occur in initial position.

3.2.16. Nasals : /m/ is realized as [m] every where.

It is produced by stopping the air column by bringing the lower lip in contact with the upper lip. During the closure the **velum** is lowered to allow the air column to pass through the nasal passage and the vocal cords vibrate.

This is called the voiced bilabial nasal.

This occurs in following environments.

Initially before vowels

me?	'glow'
moŋ	'wound' (v)
mano	'who'
masi	'cow'

Initially in clusters-

mra:d	'animal'
mlu?	'salt'

Medially between vowels

hima	'kingdam'
duma	'tobacco'
ruma	'speak in coherently'

Medially in clusters-

samla	'young human being'
kumno	'low'
timpew	'betel leaf'
timbuyt	'elbow'
khambha	'excell'
ba:mthan	'glutton'
lo:mdiŋ	'volcano'
lo:mjiŋtap	'burial ground'
ummat	'tear'

Finally after vowels

im	'live'
rem	'dear' (adj)
dum	'dark'

3.2.17. /n/ is realized as [n].every where.

It is produced by stopping the air column by bringing the tip of the tongue in contact with the alveolar ridge. During the closure (contact) the velum is lowered to allow the air column to pass through the nasal passage. The vocal cords vibrate.

This is called the voiced, alveolar nasal. This occurs in the following *environments*-

<i>Initially before vowels</i>		<i>Medially between vowels</i>	
nar	'iron'	duna	'backward, less'
nan	'pool'	kani	'opium'
nep	'sharp'	ši:ni	'sugar'
ne?	'stick to'		
ne	'from'		
<i>Finally after vowels-</i>		<i>Medially in clusters-</i>	
phan	'potato'	khanši	'scissor'
sbun	'jenerosity'	rinsum	'garlic'
jan	'near'	pīnlip	'extinguish'
ta:n	'pull'	sinra:y	'autumn'
		sanphew	'fifty'
		wanpat	'rebound'
		pīnbieyd	'allurement'
		anta:d	'guess'
		mīn̄thi	'stubbornness'
		rīnda	'carpentar's plane'
		kinja	'a kind of drug'
		pīnjhie?	'urinate'
		i:tīnnad	'beautiful'
		u hīnmen	'brother'
		hīn̄ñiew	'seven'
		ban̄neyt	'obey'

3.2.18. /ñ/ is realized as [ñ] everywhere.

[ñ] is produced by stopping the air column by raising the centre of the tongue to touch the hard palate. And the soft

palate is lowered to allow the air column to pass through the nasal passage. The vocal cards vibrate.

This is called the voiced, palatal nasal.

This occurs in the following environments-

<i>Initially before vowels</i>	<i>Medially between vowels</i>
ñyad 'wipe'	kiña 'sacrifice'
ñyo? 'get'	
ñyaw 'count'	

Medially in clusters-

ja:ñphoŋ	'clothing'
ja:ñbo	'dhoti'
pañtali	'chisel'
señjirŋam	'green snake'
ja:ñkup	'a kind of garment of khasi women'
jiŋbuñmasi	
keñno	'resign'
ja:ññya:d	'towel'
ja:ñsem	'a garment used as outer covering by khasis'

Finally after vowels-

ja:ñ	'cloth'
reñ	'louse'
bseñ	'snake'
kruñ	'white ant'

3.2.19. /ŋ/ is realised as [ŋ] every where.

It is produced by the closure of the air stream by raising the back of the tongue to touch the soft palate to make a complete oral closure. The velum is lowered, so the air passes through the nasal cavity with force to produce this sound. The vocal cords vibrate.

It is called voiced velar nasal.

This occurs in the following environments.

Initially before vowels-

ŋa	'I'
ŋi	'we'
ŋap	'honey'
ŋam	'sink'

Medially between vowels-

saŋŋe	'check' (v)
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Medially in clusters-

liŋba	'through'
joŋphi	'yours'
teŋteŋ	'seldom'
naŋta	'thin'
šoŋdor	'value'
jiŋthew	'measurement'
yeŋjoyt	'stand up'
yariŋko	'rooster'
tiŋkhu?	'collide'
otliŋkhat	'clip' (v)
haŋne	'here'
jiŋri?	'beltch'
khaŋlad	'obstruct'
jiŋha:w	'steam, vapour'

Finally after vowels

iŋ	'bun'
reŋ	'horn'
diŋ	'five'
laŋ	'together'

Fricatives :

3.2.20. /s/ is realized as [s] every where.

It is produced by raising the blade of the tongue towards the alveolar ridge, leaving a small narrow opening for the air current to squeeze through to produce friction. The vocal cords do not vibrate.

This is called the voiceless alveolar fricative.

This occurs in the following environments.

Initially before vowels-

sim	'bird'
sañ	'melt'
so?	'fruit'
sey	'pullout'
siew	'repay'

Initially in clusters-

spe?	'sprout'
sbun	'jenerosity'
stet	'fast'
sdie	'fry'
ska:ñ	'fly' (n)
sma:y	'oath'
s?yar	'hen'
sŋi	'day'
slap	'rain'

Medially between vowels-

i:si	'dislike'
tusok	'mattress'
masi	'cow'

Medially in clusters-

šispa?	'hundred'
isbad	'steel'
jasdie	'fried rice'
khaski	'a variety of fish'
atoskhana	'chimney'
khuslay	'mourn'

3.2.21. /š/ is realized as [š] everywhere.

It is produced by raising the front of the tongue against the hard palate so as to leave a narrow passage for the air current to squeeze through to produce friction. The vocal cords do not vibrate.

This is called the voiceless, palatal fricative.

This occurs in the following environments-

Initially before vowels-

šim	'take'
šit	'heat'
šoŋ	'ride'
ša:d	'dance'
sayt	'be well'
im šim	'neg. past. marker'

Initially in clusters-

ško:r	'ear'
šnat	'tributary'
šñya?	'chisel'
šrie?	'monkey'
šlur	'brave'
šñuo?	'hair'
š?yap	'sand'
šya?	'allow' (permit)

<i>Medially between vowels-</i>	<i>Medially in clusters-</i>
šiša 'true'	bi:šni 'envy' (v)
raši 'sickle'	
muši 'cobbler'	

3.2.22. /h/ is realised as [h] everywhere.

It is produced by bringing the vocal cards together to the extent of leaving a narrow opening for the air current to squeeze through producing friction. The vocal cords do not vibrate.

This sound is called voiceless glottal fricative.

This occurs in the following environments.

<i>Initially before vowels-</i>	<i>Initially in clusters-</i>
ha 'at'	h?o:yd 'yes'
he:r 'fly'	
hala 'shout'	
hika y 'teach'	
hinrey 'but'	
ha:p 'fall'	

Medially between vowels-

pahe?	'father's elder brothers son'
maha:m	'warn'
saha:m	'yawn'
mahut	'elephant driver'
muhor	'seal'

It does not occur in final position.

Trills :

3.2.23. /r/ has two variants viz (i) [r] and (ii) [ɾ].

(i) [r] is produced by bringing the tip of the tongue nearer the alveolar ridge and allowing the air stream to pass through the narrow passage to produce vibrations at the tip of the tongue.

The vocal cords vibrate and the soft palate is raised.

This is called the voiced alveolar trill.

This occurs in the following environments.

Initially before vowels-

ri	'country'
ran	'shrink'
roŋ	'colour'
ru?	'also'
ruŋ	'enter'

Initially in clusters-

rben	'thick'
rkhyaŋ	'dry'
rnoŋ	'brass'
rŋa	'charcoal'
rʔeŋ	'swollen'

Medially between vowels-

suri	'wolf'
kurat	'saw' (n)
šira	'flatrice'
sara	'nurse'

Medially in clusters-

kirpaŋ	'peculiar'
a:rphew	'twenty'
sɪrti	'file'
pirthat	'thunder'
kirdem	'stamp'
jarjar	'secret'
ke:rkut	'surround'
širkhey	'terrific'
mermer	'sprout'
birni	'sack'
jirŋam	'green'
tirsimp	'claw'
piršaŋ	'examine'
lurhap	'meteor'
bi:rya	'amuse'

(ii) [ɾ] is produced by bringing the tip of the tongue nearer the alveolar ridge in the same way as for the trill [r] ; but for the difference that in this case the vibration is for very short time ; while for the trill the vibration is prolonged. If the vibration can be counted then in the case of Tap it is once or twice and in trill many times.

It is called the voiced alveolar tap.

This occurs only in the morpheme final position before pause.

[uɾ]	'fall down'	/ur/
[jhuɾ]	'vegetable'	/jhur/
[soɾ]	'city'	/sor/
[a:ɾ]	'two'	/a:r/

Lateral :

3.2.24. /l/ is realized as [l] everywhere.

It is produced by stopping the air column at the median line by raising the tip of the tongue against the alveolar ridge so as to allow the air to escape through either of the sides of the tongue. The vocal cords vibrate and the soft palate is raised.

This is called the voiced alveolar lateral.

This occurs in the following environments-

Initially before vowels-

lip	'off'
laŋ	'together'
la:d	'opportunity'
lum	'collect'
luom	'mountain'

Initially in clusters-

lpa	'already'
ldoy	'hanging' (a small thing)
lboŋ	'thigh'
lkhoyt	'like a small lump'
l?o?	'cloud'

Medially between vowels-

hala	'stout'
šala	'squint'
mala	'stay'
pule	'read'

Medially in clusters-

kulma:r	'confuse'
šalni	'sieve'
yapjilop	'drown'
alhya	'lazy ; idle'

Finally after vowels-

sa:yul	'wool'
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Frictionless continuants :

3.2.25. /w/ has two allophones-1. [w], and 2. [W].

1. [w] is produced in the same position as for [u] ; i.e. by raising the back of the tongue towards the velum. The difference between [u] and [w] is that while in the case of [u] the tongue assumes a definite position with reference to the palate and remains in that position for some time ; in the case of [w] the tongue moves towards the direction of the velum ;

but does not assume any definite position so that the sound is heard only as a glide. This sound is called the bilabial frictionless continuant or semivowel. It occurs after a vowel in morpheme medial or final position only. e.g.-

[kiw?] 'shiver' /kiw?/ [jew] 'sour' /jew/
 [briew] 'human being' /briow/ [khiw] 'jar' /khiw/
 [khinñiw] 'to stagger' /khinñiw/

When [W] occurs before a vowel it tends to be shorter. e.g.-

[kwa?] 'like' /kwa?/ [rwa:y] 'sing' /rwa:y/
 [tirwa?] 'offer' /tirwa?/

2. [W] is produced in the initial position of a word when the tongue raises to a slightly higher position than for [u] and the air passes out with some audible friction. The vocal cords vibrate. This sound is tense. This sound is also produced when it occurs in intervocalic positions.

e.g.- [wa:d] 'search' /wa:d/ [WEy] 'one' /wey/
 [WiE?] 'worm' /wie?/ [ʃuWa] 'before' /ʃuwa/
 [duWa:y] 'medicine' /duwa:y/

3.2.26. /y/ has two allophones- viz. 1, [y] and 2. [Y].

1. [y] is produced in the same position as for (i) ; i.e. by raising the front of the tongue towards the palate. The difference between (i) and [y] is that in the case of (i) the tongue assumes a definite position with reference to the palate and remains in that position for some time, but in the case of [y] the tongue moves towards the direction of the palate but does not assume any definite position ; so that the sound is heard only as a glide. This sound is called the palatal frictionless continuant or semi vowel.

It occurs in medial and final positions only. e.g.-

thya?	'sleep'	baynon	'reward'
nyat	'push'	meyrit	'mother's younger
peyt	'see'		sister'
leyt	'go'	bleytha:w	'image'

ya:yɗ	'walk'	la:yphew	'thirty'
kayt	'banana'	batay	'explain'
		a:y	'give'
		lduy	'hanging' (big thing)

2. [Y] : when [y] is produced in the initial position of a word the tongue raises to a slightly higher position than for [i] and the air passes out with some audible friction. The vocal cords vibrate. It occurs only in initial position and intervocalically in medial position.

e.g.

[Yoŋ]	'black'	/yoŋ/	[khaYi]	'festival'	/khayi/
[Yap]	'die'	/yap/	[iYEŋ]	'house'	/iyeŋ/
[Ya]	'night'	/ya/			

3.2.27. The following table gives in detail the allophonic distribution of the phonemes—

Phoneme Allophones			Allophonic distribution		
			Initial	Medial	Final
Vowels	/i/	[i]	+	+	+
	/i:/	[i:]	+	+	—
	/e/	[e]	+	+	+
		[E]	+(?)	+(C-?)	—
	/e:/	[e:]	+	+	—
	/ɨ/	[ɨ]	+	+	—
	/a/	[a]	+	+	+
		[a]	—	—	+(Co-)
	/a:/	[a:]	+	+	—
	/o/	[o]	+	+	+
		[o]	—	+(Cu(:)-C)	—
		[O]	—	+(C-?)	—
	/o:/	[o:]	—	+	—
	/u/	[u]	+	+	+
	/u:/	[u:]	—	+	—

Phoneme	Allophones	Allophonic distribution			
		Initial	Medial	Final	
Consonants :	/p/	[p]	+	+	+
	/ph/	[ph]	+	+	—
	/b/	[b]	+	+	+
	/bh/	[bh]	+	—	—
	/t/	[t]	+	+	+
	/th/	[th]	+	+	—
	/d/	[d]	+	+	+
	/dh/	[dh]	+	+	—
	/j/	[j]	+	+	+
	/jh/	[jh]	+	—	—
	/k/	[k]	+	+	+
	/kh/	[kh]	+	+	—
	/ʔ/	[ʔ]	—	+	+
	/m/	[m]	+	+	+
	/n/	[n]	+	+	+
	/ñ/	[ñ]	+	+	+
	/ŋ/	[ŋ]	+	+	+
	/s/	[s]	+	+	—
	/ʃ/	[ʃ]	+	+	—
	/h/	[h]	+	+	—
	/r/	[r]	+	+	—
		[r]	—	—	+
	/l/	[l]	+	+	+
	/w/	[W]	+	+	—
		[w]	—	+	+
	/y/	[Y]	+	+	—
		[y]	—	+	+

4. PHONETIC DRILLS

4.0. Phonetic Drills

The phonetic drills are given to help the learner practice the pronunciation of the different sounds described in the previous chapter. All sounds irrespective of their phonemic status have been enlisted and been included in words which need not form minimal pairs. Minimal pairs are given where the drill is aimed at phonemic distinction.

Though the drills are for pronunciation of phones, the transcription used here is phonemic. But whenever there are allophones for phonemes, then the transcription is both in phonemic and in phonetic transcription. The phonetic transcription is given in parenthesis.

The examples given under the description of each sound in the previous chapter can also be used for drilling the individual sounds and also for clusters. Khasi is very rich in initial consonant clusters. In the second chapter, all the possible combinations have been listed. They can be utilized for the purpose of drilling, as these are not given separately in this chapter.

4.1. Vowels

4.1.1. a) Difference in duration :

4.1.1.1. /i/ - /i:/

ipa	'father'	i:beñ	'regard inferior'
im	'live'	i:si?	'dislike'
tip	'know'	i:siney	'pity'
ti?	'dig'	ti:du?	'little finger'
sim	'bird'	ti:kme	'thumb'
šida	'simple ;	si:ma:d	'bed bug'
	innocent,	ši:spa?	'hundred'

4.1.1.2. /e/ - /e:/

em	'well-to-do'	e:m	'no'
ber	'likeflash' [ɾ]	be:r	'sprinkle' [ɾ]

4.1.1.3. /a/ - /a:/

phan	'potato'	pha:n	'jackfruit'
ban	'press' (v)	ba:n	'dam'
tad	'be cheap'	anta:d	'guess'
jan	'near'	ja:ñ	'cloth'
ŋap	'honey'	a:p	'cheek'
sam	'bore' (a hole)	sa:m	'distribute'
sañ	'melt'	sa:ñ	'cut into pieces'

4.1.1.4. /o/ - /o:/

kop	'ear of corn'	ko:p	'deserve'
ur	'fall' [ɾ]	yo:r	'snow' [ɾ]
dor	'price' [ɾ]	sko:r	'ear' [ɾ]
bok	'luck'	bo:r	'power' [ɾ]
tor	'lung' [ɾ]	po:r	'time' [ɾ]
mon	'prefer'	nalo:r	'over' 'above' [ɾ]
jroŋ	'tall'	tno:m	'roof'

4.1.1.5. /u/ - /u:/

khlur	'come off' (hair) [ɾ]	khlur	'star' [ɾ]
dur	'picture' [ɾ]	lu:r	'plough' [ɾ]
lun	'tadpole'	iu:n	'throw'
sum	'bathe'	su:m	'throw' (cast a spear)
dum	'dark'	pu:n	'throw' (stone)

4.1.2. Difference in tongue height and position :

4.1.2.1. /i/ - /i/

im	'live'	im	'not'
šim	'take'	im šim	'past T. neg. marker'
jinreñ	'louse'	in	'future T. marker'
šiteŋ	'half'	šintur	'mouth'

4.1.2.2. /i/ - /u/

im	'not'	um	'water'
im šim	'past T. neg. marker'	sum	'bathe'
in	'future T. marker'	šun	'lime'
min	'temporal past marker'	mut	'aim'

4.1.2.3. /i/ - /e/

i?	'ripe'	e?	'hard' [E]
im	'live'	em	'well-to-do'
tip	'know'	tep	'bury'
ti?	'dig'	te?	'bind' [E]
tim	'curse' (v)	tem	'beat' (a drum)
šim	'take'	šem	'find'
šit	'hot'	šet	'cook'
rim	'old'	rem	'dear ; costly'
riŋ	'pull'	reŋ	'horn'

4.1.2.4. /e/ - /o/

pe?	'sieve' [E]	po?	'make oneself low [O]
tep	'bury'	top	'drum'
te?	'bind' [E]	to?	'bite ; peck' [O]
the?	'pour' [E]	phoŋ	'put on' (clothes)
dem	'bend'	dom	'scold'
seŋ	'fund'	soŋ	'fold'
rep	'cultivate'	sop	'cover'
reŋ	'horn'	roŋ	'colour'
len	'deny'	loŋ	'fox-glove'

4.1.2.5. /i/ - /a/

im	'not'	am	'bite'
min	'temporal past marker'	nan	'pool'

4.1.2.6. /u/ - /o/

pu	'bite' (snake & etc.)	po?	'make oneself low' [O]
tup	'cannon'	top	'drum'
dum	'dark'	dom	'scold'
kut	'fort'	kot	'reach'
mlun	'round' (a big thing)	mlon	'round' (a small thing)
du?	'lose'	do?	'kiss' [O]
tu?	'steal'	to?	'bite, peck' [O]
ruŋ	'enter'	roŋ	'colour'

4.1.2.7. /e/ - /a/

em	'well-to-do'	am	'plant, bite'
tep	'bury'	tap	'cover' (v)
te?	'bind' [E]	ta?	'ruh'
jem	'soft'	jam	'make noise'
kem	'catch'	kam	'acquire, work'
met	'body'	mat	'joint'
nep	'shrewd'	nap	'tongs'
reŋ	'horn'	ran	'shrink'
le?	'do' [E]	la?	'be able'

4.1.2.8. /a/ - /o/

tap	'cover'	top	'drum'
bat	'catch'	bok	'luck'
jam	'make noise'	jot	'demolish'
kam	'acquire'	kot	'reach'
laŋ	'together'	loŋ	'fox-glove'
šaŋ	'basket'	šoŋ	'ride'
nan	'pool'	mon	'prefer'
pa?	'cry; answer'	po?	'make oneself low' [O]
ta?	'rub'	to?	'peek ; bite' [O]

4.1.2.9. /e/ : [e] - [E] - [ɛ]

em	'well-to-do'	e?	'hard' [E]	dien	'back' [ɛ]
len	'deny'	le?	'do' [E]	kie	'ladder' [ɛ]
them	'valley'	the?	'pour' [E]	sdien	'bang' [ɛ]
tep	'bury'	te?	'bind' [E]	die	'sell' [ɛ]
nep	'sharp'	ne?	'to stick' [E]	prie	'vomit' [ɛ]
met	'body'	me?	'glow' [E]	khie	'raise' [ɛ]

4.1.2.10. /o/ : [o] - [O] - [ɔ]

soŋ	'fold'	so?	'fruit' [O]	šņuo?	'hair' [ɔ]
top	'drum'	to?	'bite' [O]	nuod	'kernal' [ɔ]
šoŋ	'ride'	šo?	'strike' [O]	pu:or	'string' [ɔ]
ot	'cut'	yo?	'get' [O]	tru:od	'scratch' [ɔ]

4.1.3. Khasi is rich in diphthongs. In learning Khasi it is necessary to learn diphthongs also. Here, the drill is aimed at illustrating the various diphthongs of khasi-

1. [ie] :

sdie?	'fry'	prie	'vomit'
jhie?	'wet'	sdie	'axe'
dien	'back'	thrie	'cane'

2. [iu] :

kiu?	'shiver'	khieu	'jar'
liur	'summer'	khinñiu	'to stagger'

3. [uo] :

šņuo?	'hair'
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4. [oe] :

khaoa	'a variety of fish'
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4.2. Single Consonants :**4.2.1. Stops : A. position of vocal cords :****4.2.1.1. /p/ - /b/**

paŋ	'be sick'	ba	'taste'
pey	'penetrate'	bey	'help' (with money)
pu?	'bite' (snake & etc)	bu?	'put'
pa:n	'ask'	ba:m	'eat'
po:r	'season' [r]	bo:r	'power' [r]
ŋap	'honey'	ŋa:b	'cheek'
sap	'talent'	so?brab	'a kind of fruit'(O)

4.2.1.2. /t/ - /d/

tap	'cover'	dap	'be full'
ti?	'dig'	di?	'smoke'
tu?	'steal'	du?	'lose'
tey	'tie'	dey	'right'
tem	'beat'	dem	'lean'
batay	'explain'	muduy	'accuse'
khuyt	'be naked'	khuyd	'clean'
payt	'crack'	payd	'crowd'
nyat	'push'	ñya:d	'wipe'

B. Aspiration :**4.2.1.3. /p/ - /ph/**

paŋ	'be ill'	phan	'potato'
pa:n	'ask'	pha:n	'jackfruit'
pa:y	'a unit of 8000'	pha:y	'turn'
put	'drag' (foot)	phut	'pull out' (tooth)
pu?	'bite'	phu?	'blossom'
pe?	'sieve' [E]	phet	'flee'
pom	'cut'	phoŋ	'puton' (clothes)

4.2.1.4. /b/ - /bh/

ba	'relative pronoun'	bha	'good'
ba?	'carry' (on the back)	bho?	'desire impudently'

[O]

4.2.1.5. /t/ - /th/

tep	'bury'	thep	'load'
tem	'beat' (a drum)	them	'valley'
ta?	'rub'	tha	'ice'
ta:w	'put food into the mouth'	tha:w	'make'
toŋ	'draw' (water)	thoŋ	'bet'
tlar	'avoid' [tlar]	thya?	'sleep'
tied	'strike'	thied	'buy'

4.2.1.6. /d/ - /dh/

lada	'if'	ra:dha	'swan'
danda	'fun'	dhara	'an outer garment worn by khasi women'

4.2.1.7. /k/ - /kh/

ki	'they'	khi	'shave'
kem	'catch'	khem-	'press'
ka	'she'	kha	'give birth to'
kot	'reach'	khot	'call'
kwa:y	'betelnut'	khwa:y	'to fish'
klet	'forget'	khlem	'without'
suk	'slowly'	sakhi	'witness'

4.2.1.8. /j/ - /jh/

jew	'sour'	jhie?	'wet' [jhie?]
ja	'cooked rice'	jhur	'vegetable'

4.2.1.9. /ʔ/ - /o/

khi?	'revolt'	khi	'ghee'
sdie?	'fry' [sdie?]	sdie	'are' (sdie)
ri?	'hide'	ri	'country'
jya?	'disappear'	jya	'happen'
me?	'glow' (fire) (mE?)	me	'thou'
la?	'be able'	la	'past tense marker'

4.2.2. Nasals : /m/ - /n/ - /ñ/ - /ŋ/

rem	'dear'	ren	'sea monster'
tham	'crab'	than	'excess'
sa:m	'serve'	san	'five'
im	'not'	in	'future tense marker'
duma	'tobacco'	duna	'less'
me?	'glow' [mE?]	nem	'age'
masi	'cow'	mano	'who'

4.2.2a. /ñ/ - /ŋ/

reñ	'louse'	reŋ	'horn'
thaŋ	'weave'	than	'burn'
sañ	'dye'	saŋ	'forbidden'
ñyaw	'count'	iŋ	'burn'
ñyat	'push'	ŋap	'honey'
ñyo?	'get' [o]	ŋam	'sink'
ñya:d	'wipe'	ŋi	'we'

4.2.3. Fricatives

4.2.3.1. /s/ - /š/

sa		ša	'at'
soŋ	'fold'	šo	'ride'
sa:d	'comb'	ša:d	'dance'
sim	'bird'	šim	'take'
sara	'to nurse'	šida	'innocent'
saha:m	'yawn'	šadem	'breast'
masi	'cow'	raši	'sockle'
tusok	'mattress'	šiša	'true'

4.2.4. Frictionless continuants

4.2.4.1. /w/ - /y/

khaway	'festival'	khayi	'trade'	[Y]
rwa:y	'sing'	ryat	'precipice'	[Y]
wie?	'worm'	yoŋ	'black'	[Y]
wey	'one'	yap	'die'	[Y]
šuwa	'before'	iyēŋ	'house'	[Y]
sa:w	'red'	ksa:y	'thread'	
thew	'measure'	tey	'build'	

4.2.4.2. /w/ - /W/

jew	'sour'	Wan	'come'	[W]
ksew	'dog'	Wa?	'hang'	[W]
sɲew	'feel'	Wa:d	'search'	[W]
khɪndew	'soil'	Wey	'one'	[W]
kew	'wheat'	Wie?	'warm'	[W]
ma:w	'stone'	šuWa	'before'	[W]
sa:w	'red four'	duWa:y	'medicine'	[W]
kwa?	'like'	Walam	'bring'	[W]
tirwa?	'offer'			

4.2.4.3. /y/ - /Y/

a:y	'give'	yoŋ	'black'	[Y]
roy	'progress'	yap	'die'	[Y]
sey	'pullout'	ya	'night'	[Y]
pey	'leak'	khayi	'festival'	[Y]
tharay	'guess'	iyey	'house'	[Y]
peyt	'see'	yeŋ	'stand'	[Y]
leyt	'go'			
kayt	'banana'			
pa:yɔ	'crowd'			

4.2.5. Manner of articulation :

4.2.5.1. /h/ - /ʔ/

muhor	'seal'	i:si?	'dislike'	
ha	'at'	e?	'hard'	[E]
hima	'kingdom'	s?iem	'king'	
he:r	'fly'	s?ot	'dysentery'	
maha:m	'warn'	mi?	'rise'	
saha:m	'yawn'	ta?	'rub'	

4.2.5.2. /r/ - [r] - [ɾ]

ran	'shrink'	a:r	'two'	
sara	'to nurse'	sor	'city'	[r]
ru?	'also'	jhur	'vegetable'	[ɾ]
šira	'flat rice'	ur	'fall down'	[r]

4.2.5.3. /r/ - /l/

raŋ	'cease' (to rain)	laŋ	'together'
raʔ	'carry, lift'	laʔ	'be able'
rem	'dear'	len	'deny'
sara	'to nurse'	šala	'squint'
suri	'wolf'	pule	'read'
tare	'feel' (in the dark)	paley	'simple'

4.2.6. Drills for final stops-

At the beginning of the chapter 3.2. it was stated that stops when they occur in morpheme final position are unreleased ; and it is difficult to identify the stops particularly when they occur after a sequence of two vowels or after a semi-vowel. So here, a few words with stops in final position are stated which will help in identifying and practicing the different stops in this position.

1. /p/

i. after a single vowel

ap	'wait'
tip	'know'
nep	'sharp'
top	'drum'
tup	'cannon'
sʔep	'sweat'
kdup	'embrace'

ii. after a sequence of vowel or a vowel and a semivowel

2. /b/

ŋa:b	'cheek'
soʔorab	'a kind of fruit' [O]
juba:b	'answer'
yakob	'complete'

3. /t/

at	'swell'	payt	'crack'
ot	'cut'	miet	'night'
sit	'heat'	neyt	'believe'
met	'body'	koyt	'get well'
put	'blow' (flute)	buyt	'tactics'
thet	'wash'	šiet	'cook'
ñyat	'push'	leyt	'go'
syat	'shoot'		

4. /d/

ta:d	'cheap'	ya:yɔd	'walk'
u:d	'moan'	dayd	'itch'
kyad	'toddy'	tied	'strike'
tro:d	'scratch'	toyd	'flow'
		jied	'vote'
		pru:yɔd	'strike' (a match)

5. /j/

siej	'bamboo'
biej	'silly'

6. /k/

dak	'alphabet'
hok	'confirm'
prek	'iron nail'
suk	'peace'
šarak	'lamp' (oil)

5. KHASI ORTHOGRAPHY :

5.0. Introduction

Khasi has no script of its own. According to folk belief, there was an indigenous script which was lost during an incendiary. The story runs like this¹ "two survivors during an incendiary managed to escape the flood by swimming across. One swimmer was a Khasi and another a Hindu man known as U Dkhar. Both carried with them only the bundles of their respective scripts. U Dkhar managed to retain his script, while the Khasi swimmer swallowed his".

Till the later part of 18th Century Khasi was not put to writing. The credit of writing Khasi first goes to the Khasi speakers of Sylhet region. They knew the Bengali language as they were in contact with Bengalis of that region. The first converts to Christianity by the Serampore Baptist Mission in 1813, were in the Sylhet region. They were encouraged to translate the Bible into Khasi in Bengali script. Due to their efforts, in 1817 St. Matthew was translated into Khasi in

1. Hamlet Bareh, A short history of Khasi literature, 1962, p. 21.

Bengali script and was printed ; and in 1827 Khashee New Testament was also printed.

But in 1844, when the Welsh missionaries entered this region, they preferred to write the Khasi language in Roman script instead of the Bengali script. The reason given was that²—"due to its (Bengali script's) most complex phonetic form which was hardly suitable for Khasi language. Moreover that time, it was antiquated and unmodified to fit in with its yet present form ; whilst the use of the Roman script was found to be more suitable".

Since 1841 all the writings in Khasi is in the Roman script.

5.1. Khasi writing system has 23 letters. Among them 20 are from the English alphabet (c, f, a, v, x and z are not used) and the remaining three letters (viz. ĩ, ñ and ng) are modifications to represent the unique sounds of Khasi. Of the three, ng which symbolizes the velar nasal, is a combination of two existing symbols in the English alphabet.

The Khasi alphabet system is as follows-

Vowels : i, ĩ, e, a, o and u.

Consonants : p, b, t, d, j, k, g, h, m, n, ñ, ng, s, r, l, w and y.

The following table gives the phonemes with their allophones of the Khasi language and their corresponding graphic representations in the current writing system of Khasi.

<i>Phonemes</i>	<i>Allophones</i>	<i>Present Graphemes</i>	<i>Suggested Graphemes</i>
i	i	i	i
i:	i:	i	ii
e	e, E, ɛ	e	e
e:	e:	e	ee
ĩ	ĩ	y, ĩ	ĩ
a	a, ʌ	a	a

2. Ibid. p. 27.

<i>Phonemes</i>	<i>Allophones</i>	<i>Present Graphemes</i>	<i>Suggested Graphemes</i>
a:	a:	a	aa
u	u	u	u
u:	u:	u	uu
o	o, O, ɔ	o	o
o:	o:	o	oo
p	p	p	p
ph	ph	ph	ph
b	b	b	b
bh	bh	bh	bh
t	t	t	t
th	th	th	th
d	d	d	d
dh	dh	dh	dh
j	j	j	j
jh	jh	jh	jh
k	k	k	k
kh	kh	kh	kh
?	?	h	' ; h
m	m	m	m
n	n	n	n
ñ	ñ	ñ	ñ
ŋ	ŋ	ng	ng
s	s	s	s
š	š	sh	sh
r	r, r	r	r
l	l	l	l
w	W	w	w
	w		
y	Y	y, ĭ	y
	y		
—	—	g	g

5.2. (1) It can be noted from above, the distinction of vowel length (short vs. long) which is distinctive in this language is not indicated. This can be overcome by using double vowels like *ii*, *ee*, *aa* and etc., to indicate the long vowels.

(2). The barred *i*, i.e., /*i̯*/ is represented inconsistently either by *ī* or *y*. For instance, /*rinda*/ or *rynda* or *rīnda* 'carpenter's plane' etc. So it is better to use *ī* for /*i̯*/ regularly, on the principle of 'one letter one symbol', as *y* is used for palatal frictionless continuant sound.

(3) There are many words with Cwa(:)C structure, like *kwa?* 'like', *rwa:y* 'aing', etc. Here instead of *w*, *u* is also used but not regularly. It is better to stick to *w* only.

(4) Glottal stop is represented variously as *ʔ*, *Y* or *h*. *ʔ* is preferred when glottal stop occurs as second member of initial consonant clusters, over *y*. E. g. *ʃ'a?* / *ʃya?* 'cactus' *ʃ'iap/ʃyiap* 'sand'; *ʃ'ieŋ/ʃyeiŋ* 'bone', etc. But elsewhere *h* may be used for glottal stop as in such positions it does not contrast with *h*.

(5) In the present writing system the initial clusters with *r* as first member are either maintained as clusters or declusterized by inserting the letter *y* between the consonants. This also is not consistently followed. As this is unwarranted the 'clusters' may be maintained, which reflect their phonetic feature. e.g.-

<i>rnoŋ</i>	'brass', instead of <i>rynoŋ</i>
<i>rben</i>	'thick', instead of <i>ryben</i>
<i>rkhe</i>	'laugh', instead of <i>rykhe</i>
<i>rŋa</i>	'charcoal', instead of <i>ryŋa</i> ., and etc.

Though it may be due to the speakers feeling of some release between the consonants of above structure; still the amount of release is not enough to use a letter to indicate it. As it is purely phonetic and predictable there is no need to use a letter to represent it. Here it is not only unnecessary, also it is not used consistently. Also, though there is similar

release for other clusters also (3.2.2), there y is not used to indicate it. Therefore y may be dropped.

(6) There are many words where there is no standard spelling. Various letters are used for the single letter. For example—

- | | | | | |
|-----|-----------------|---------------------|-----------|--|
| (a) | ioŋ/ïon/ | yoŋ | 'black' | |
| | ioʔ/ïoʔ/ | yoʔ | 'get' | |
| | it/ïit/ | yit | 'glass' | |
| (b) | rimpey /rumpei/ | 'hearth' | /rimpey/ | |
| | rinda/randa/ | 'carpenter's plane' | /rinda/ | |
| | šilyaʔ/šilliaʔ/ | 'mat' | /šilya/ | |
| | šuwa/šwa/ | 'before' | /suwa/ | |
| | suki/sukhi/ | 'slowly' | /suki/ | |
| | siŋkaai/synkai/ | 'lip' | /siŋkaay/ | |
| | siep/sieb/ | 'engross' | /siep/ | |

In (a) the third column is phonetically correct. It may be used regularly. In (b) the suggested transcription is given after the English gloss. From the above it will become clear that there is a lot of variation in spelling, and standardization of spelling system is urgently required.

(7) In morpheme final position after a frictionless continuant there is vacillation between using t and d, p and b. As it is difficult to depend upon the phonetic nature of these sounds, morphophonemic criterion may be used to identify these sounds.

(8) There is no /g/ phoneme in this language; but it is needed in the orthography to represent the velar nasal /ŋ/ as ng.

(9) The palatal fricative š is graphimically represented as sh. This may be continued.

Khasi also uses the similar conventions adopted in writing English, such as starting a sentence always with a capital letter and starting the proper names with capital letters.

Devanagari equivalents are given below for the benefit of those interested to write this language in Devanagari script.

<i>Phoneme</i>	<i>Roman script</i>	<i>Devanagari script</i>
a	a	अ
a:	aa	आ
i	i	इ
i:	ii	ई
ɨ	ĩ	उ
o	o	ओ
o:	oo	औ
u	u	उ
u:	uu	ऊ
e	e	ए
e:	ee	ऐ
p	p	प
ph	ph	फ
b	b	ब
bh	bh	भ
t	t	त
th	th	थ
d	d	द
dh	dh	ध
j	j	ज
jh	jh	झ
k	k	क
kh	kh	ख
—	g	ग
ʔ	ʔ; h	ह
m	m	म
n	n	न
ñ	ñ	ञ
ŋ	ng	ङ
s	s	स
ʃ	sh	श
r	r	र
l	l	ल
w	w	व
y	y	य

In writing Khasi consonant clusters in Devanagari script here also the available Devanagari consonant clusters may be used to represent them. The other clusters which have no Devanagari clusters (signs) may use (adopt) 'halanth' to represent the clusters.

Select Bibliography

- Acharya, S. K. 1971. "Language of the Khasis". *Mainstream*. (May), Pp. 19-26.
- Bareh, Hamlet. 1969, *A short history of Khasi literature*. Shillong : Don Bosco Press.
- Chatterji, S. K. 1974. *Kirāta-Jana-kṛti*. Calcutta : Asiatic Society.
- Grierson, G. A. (Comp. and Ed.) 1966. *Linguistic Survey of India*. Vol. II. (2nd Edn.). Mon-khmer and Siamese-Chinese families (including Khasi and Tai). Delhi : Motilal Banarasidass. Pp. 1-57.
- Guha, B. S. 1944, *Racial elements in the population*.
- Gurdon, P. R. T. 1975. *The Khasis*. Delhi : Cosmo Publications.
- Nagaraja, K. S. 1978. *A descriptive analysis of Khasi*. Poona : University of Poona. (Ph.D. dissertation).
- Pattanayak, D. P. (Ed.) 1973. *Distribution of languages in India, in States and Union Territories*. (Revised Edn.) Mysore : Central Institute of Indian Languages.
- Thomas, David and Headley, Robert Jr. 1970. "More on Mon-Khmer sub-grouping". *Lingua*. Vol. 25. Pp. 308-418.

